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VOLUME IV



CHICAGO, U. S. A.

1910-1914

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VOL. IV, NO. I.

ANNUAL REPORT OF THE DIRECTOR

TO THE
BOARD OF TRUSTEES

FOR THE YEAR 1910.



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ANNUAL REPORT OF THE DIRECTOR.

1910.

To the Trustees of Field Museum of Natural History:

I have the honor to present a report of the operations of the Museum for the year ending December 31, 1910.

Under the proper heading and subheading following, the affairs of the Museum are considered and commented upon in detail, from which will be drawn many gratifying evidences of the steady development of the Museum and of the increase of its usefulness as an agency for popular education and for the acquisition and dissemination of scientific knowledge. Its field of operation has been greatly extended during the past year, especially in the Department of Anthropology, although all of the Departments have shared in the general outward movement. The death of Mr. Edwin Walker, who had been a most serviceable member of the Board of Trustees since its organization, must be chronicled. At a meeting of the Board held October 10th the following was recorded:

"The closing of the life of Edwin Walker, after a protracted and suffering illness, removes from this Board one of its oldest members, whose constant services, especially in matters involving legal questions, have been of very great value to the Institution.

"Upon the larger interests of Chicago, in which community he had lived and occupied a conspicuous station for many years, and to whose welfare he was patriotically devoted, the death of Mr. Walker entails the loss of another of those strong men to whose wise, forceful, purposeful character Chicago owes its great progress and high place as a municipality. We feel it a most grateful privilege to express our admiration for him as a fellow citizen and as a friend."

During the year two members of the scientific staff have died: Mr. John Farwell Ferry, of the Division of Ornithology, and Mr. Charles S. Wake, cataloguer and bibliographer in the Department of Anthropology. Mr. Ferry was a young man of much promise and of great enthusiasm, and his associates and others in similar work keenly regret the close of the creditable career that undoubtedly awaited this young scientist. Mr. Wake was well advanced in years and a gentleman of unusual culture. He performed services of much value to science, but of a character not calculated to attract public attention.

It cannot be out of place in this report to mention the lamentable sudden death of Mr. Theodore Lescher, who had been for several years intimately associated with the staff of the Museum in preparing the plans for the interior arrangement of the new Museum building. A man of rare accomplishments, fine sensibilities, and scrupulous conduct, the sudden ending of his life, full of the promises of high station in his profession, is deplored. The conclusion, for the present at least, of the expedition of Dr. Berthold Laufer to China and Tibet in the interest of the Department of Anthropology, and under the support of the fund provided by Mrs. T. B. Blackstone, is worthy of special mention in view of the brilliant results that rewarded the three years of researches conducted by its accomplished chief. The amount of material, but, what is of greater importance, its character, places the Museum in the first rank among those institutions that have entered this difficult and fascinating territory. It is hoped that a large part of the collections will be on view within a few months, and that in the meantime, a number of valuable contributions to the knowledge of Tibet and China reflected by these collections and their capable study will be made by Dr. Laufer, who has accepted the permanent appointment of Associate Curator of the Division of Asiatic Ethnology on the staff of the Museum. While referred to elsewhere, special mention should be made of the generous donations of Mr. Joseph N. Field for prosecuting ethnological investigations in the South Pacific Islands; the contribution of the Standard Oil Company in both funds and material for the reinstallation of Petroleum Hall; and further donation from Mr. Stanley McCormick for the extension of the investigations of the Hopi Indians. The members of the Board of Trustees of the Museum have individually made a number of contributions of money to the Institution during the year. Extensive repairs and improvements have been made in and about the Museum building during 1910. The entire exterior of the structure has been whitewashed and the roof and subordinate foundations, entrances, etc., have been repaired and strengthened in accordance with the recommendations of the Architects, D. H. Burnham & Company. An iron fence has been erected around the building to protect the public walking in the park near the walls from possible falling plaster from the cornice, resulting from constant deterioration. The city telephone service has been extended both for Departmental and public use within the building, and the laboratories and work rooms as well as a number of the exhibition halls have been rearranged and repainted, refloored, etc. One of the most important additions to the facilities of the working force of the Museum has been the renting

of botanical and geological laboratories and work rooms in a building on Jefferson Avenue, a short distance from the Museum. This is a well lighted and a well ventilated suite of rooms in a new brick building, and is a very gratifying relief from the dark, cramped, and generally unfit quarters that were provided in the Museum building. In these new quarters the Department of Botany is now engaged with a most competent force in preparing artificial plants, flowers, and fruits for the exhibition series, a number of which have already been placed on view and elicit unusual appreciative comment on the part of both the public and students. The close of the year finds a number of important expeditions in the field. Dr. Lewis in British New Guinea; Mr. Cole in the Philippines, whence he will go to Borneo; Dr. Osgood and his assistant in Venezuela; Dr. Meek in the Panama Canal Zone; Dr. Millspaugh in the Bahamas, and Mr. Smith in Oregon. In addition to these, expeditions are contemplated for botanical investigations and collections in the Tropics of the Pacific and in the Far East; for collections and reproductions among the Hopi; for investigations of the Potawatomi Indians and of the Mound Builders, and for ornithological collecting and sketching on the Island of Laysan. From all of which it is apparent that as satisfactory as the results of the closing year have been in all Departments, the coming year is equally promising.

MAINTENANCE.—The budget approved by the Board of Trustees provided the sum of \$178,320 for the expenses of the Museum for the year. The amount expended for maintenance was \$145,330, leaving the satisfactory margin of \$32,990. In addition to this amount \$49,800 was expended by special authority of the Board for collections, expeditions, and exhibition cases, which brought the total to \$195,130. A further sum of \$20,865 was subscribed by friends of the Museum for special expeditions, material, and new installations.

LECTURE COURSES.—Two courses were given as usual, in the Autumn and Spring, bringing the number of courses given by the Museum to thirty-three. The attendance at these lectures has been steadily good, and the increase in the attendance of students and teachers has been observed with much satisfaction. The ready co-operation of well-known scientific men and lecturers in this work is gratifying, and occasion is here taken to thank the different gentlemen who participated in the courses.

Following is the Thirty-second Free Illustrated Lecture Course, with the subjects and lecturers, delivered during the months of March and April, 1910:

- March 3 "Snapping Live Game on the Roosevelt Hunting Trail."
Mr. A. Radclyffe Dugmore, New York City.
- March 12 "The Call of the West."
Mr. C. J. Blanchard, Statistician, U. S. Reclamation
Service.
- March 19 "Mongolia and Siberia."
Prof. Roland B. Dixon, Harvard University.
- March 26 "Our Forests and What They Mean."
Dr. Charles F. Millsbaugh, Curator, Department of
Botany.
- April 2 "Cliff Dwellers and Pueblos."
Mrs. Gilbert McClurg, Regent General, The Colorado
Cliff Dwellers Association.
- April 9 "Some Alaskan Glaciers."
Prof. U. S. Grant, Northwestern University.
- April 16 "Fox Hunting."
Mr. E. S. Riggs, Assistant Curator, Division of Pale-
ontology.
- April 23 "Human Development and Evolution."
Dr. Frank Lillie, University of Chicago.
- April 30 "The Colorado River."
Prof. O. C. Farrington, Curator, Department of Ge-
ology.

Following is the Thirtieth-third Free Illustrated Lecture Course, with
beginning of the course illustrated from October 15th to December
15th, 1917.

- Oct. 15 "The Bird Life of the Bahamas with Special Reference
to the Noddy and the Phalarope."
Prof. Frank M. Chapman, Assistant Curator of
Mammalogy and Ornithology, American Museum of
Natural History.
- Oct. 22 "Japanese Mythology as Represented in Their Archæ-
ology."
Dr. William Elliot Griffis, Ithaca, New York.
- Oct. 29 "Through Africa with Roosevelt."
Prof. J. Alden Loring, Owego, New York, Field
Naturalist to the Roosevelt African Expedition.
- Nov. 5 "Wild Game of Alaska."
Prof. Wilfred H. Osgood, Assistant Curator of Mam-
malogy and Ornithology.

- Nov. 12. — "Plants and People of Mexico."
Prof. Charles J. Chamberlain, Department of Botany,
University of Chicago.
- Nov. 19. — "Gold Mining in Alaska."
Prof. Wallace W. Atwood, United States Geological
Survey.
- Nov. 26. — "Material Basis for Perpetuity of the American People."
Dr. W J McGee, Washington, D. C.
- Dec. 3. — "The Indians of the Province of Esmeraldas, Ecuador."
Dr. S. A. Barrett, Curator of Anthropology, Public
Museum, Milwaukee, Wisconsin.
- Dec. 10. — "The Winning of the West or Home-making by the
Government."
Mr. C. J. Blanchard, Statistician, U. S. Reclamation
Service.

PUBLICATIONS.— During the year eleven publications were issued, most of the numbers being of the Zoölogical Series. The mailing list has been considerably extended in connection with the exchange system of literature with scientific and learned societies.

Following is a list of the publications issued and a table showing their distribution during the year:

- Pub. 139. — Zoölogical Series, Vol. VII, No. 8. Description of two New Pulmonate Mollusks with a list of other species from the Solomon Islands, collected by Dr. George A. Dorsey. By William Healey Dall. 10 pp., 1 plate, edition 1,500.
- Pub. 140. — Report Series, Vol. III, No. 4. Annual Report of the Director to the Board of Trustees, for the year 1909. 107 pp., 14 illustrations (half-tones), edition 2,500.
- Pub. 141. — Zoölogical Series, Vol. X, No. 2. Diagnoses of New East African Mammals, including a New Genus of Muridæ. By Wilfred H. Osgood. 10 pp., edition 1,500.
- Pub. 142. — Zoölogical Series, Vol. VII, No. 9. A Synoptic List of the Fishes known to occur within fifty miles of Chicago. By S. E. Meek and S. F. Hildebrand. 105 pp., 12 zinc etchings, 52 half-tones, edition 1,500.
- Pub. 143. — Zoölogical Series, Vol. X, No. 3. Further New Mammals from British East Africa. By Wilfred H. Osgood. 8 pp., edition 1,500.

- Pub. 144. Zoological Series, Vol. VII, No. 10. Notes on some Clerids of Middle and North America with descriptions of New Species. By A. B. Wolcott. 63 pp., 2 plates, edition 1,500.
- Pub. 145. Geological Series, Vol. III, No. 8. Meteorite Studies III. By Oliver Cummings Farrington. 28 pp., 4 half-tone plates, 1 zinc plate, edition 1,500.
- Pub. 146. Ornithological Series, Vol. I, No. 6. Catalogue of a Collection of Birds from Costa Rica. By John Farwell Ferry. 24 pp., edition 1,500.
- Pub. 147. Zoological Series, Vol. VII, No. 11. Batrachians and Reptiles from British East Africa. By Seth Eugene Meek. 11 pp., edition 1,500.
- Pub. 148. Zoological Series, Vol. VII, No. 12. Notes on Batrachians and Reptiles from the Islands North of Venezuela. By Seth Eugene Meek. 4 pp., edition 1,500.
- Pub. 149. Zoological Series, Vol. X, No. 4. Mammals from the Coast and Islands of Northern South America. By Wilfred H. Osgood. 8 pp., 2 half-tone plates, edition 1,500.

The Museum exchange list now numbers 1,283 names, of which 682 are in foreign countries and 601 in the United States and its possessions.

The following table shows the number of exchanges with each of the foreign countries:

Argentine Republic	12	France	67
Australia	24	Germany	138
Austria	41	Switzerland	20
Belgium	18	South Africa	12
Borneo	1	Tasmania	3
Brazil	8	Trinidad	1
British Guiana	2	U. S. Colombia	1
Canada	29	Great Britain	111
Central America	6	Greece	2
Ceylon	3	Italy	38
China	2	India	16
China	1	Japan	7
Cuba	4	Java	4
Denmark	7	Liberia	1
East Africa	1	Malta	1
Egypt	1	Mexico	17
Finland	1	Netherlands	18
For Islands	1	New Brunswick	1

New Zealand	6	Spain	5
Norway	8	Sweden	14
Peru	2	Uruguay	1
Portugal	6	West Indies	4
Roumania	1	Yucatan	1
Russia	19		
Sicily	1		
			682

The following table shows the number of foreign exchanges receiving the different publications:

Anthropological	248
Botanical	359
Geological	329
Ornithological	219
Zoölogical	299
Report	682

The publications are distributed to the different States and Insular Possessions as follows:

Alabama	2	New Jersey	16
Arkansas	1	New York	84
California	28	North Carolina	6
Colorado	12	North Dakota	1
Connecticut	23	New Mexico	2
Delaware	2	Ohio	17
District of Columbia	70	Oklahoma	2
Florida	2	Oregon	1
Illinois	57	Pennsylvania	41
Indiana	13	Rhode Island	5
Idaho	1	South Dakota	2
Iowa	13	Tennessee	2
Kansas	7	Texas	3
Kentucky	2	Utah	2
Louisiana	3	Vermont	4
Maine	7	Virginia	3
Maryland	9	Washington	6
Massachusetts	67	West Virginia	4
Michigan	13	Wisconsin	16
Minnesota	9	Wyoming	2
Mississippi	3	Philippine Islands	2
Missouri	14	Porto Rico	1
Montana	2	Hawaii	6
Nebraska	7		
Nevada	2		
New Hampshire	4		
			601

The following table shows the number of domestic exchanges receiving the different publications:

Anthropological	251
Botanical	330
Geological	333
Geographical	169
Zoological	280
Report	601

THE LIBRARY. The Library now contains 54,270 books and pamphlets, distributed as follows:

General library	37,101
Anthropological library	2,496
Botanical library	5,290
Geological library	6,537
Zoological library	2,141
Library of Exposition Literature	705
	<hr/> 54,270

The additions for the year were 2,026 books and pamphlets — 334 by purchase and 1,692 by gift and exchange. The purchase of books, having been limited to a portion of such works as were urgently needed, was less than the previous year by 682 books. The accessions were largely restricted to gifts from friends of the Museum and exchanges from kindred institutions. The most notable gift of the year was received through the generosity of Mr. W. J. Chalmers and Mr. Byron L. Smith, who presented to the Museum the *Head of the Smithsonian Institution*, which included also a very complete set of monographs on fossil sponges that are almost priceless because of their rarity; partial sets of geological survey reports and transactions that are valuable in filling in and completing sets in the library, and a number of duplicates that will be useful as exchange material. Other valuable gifts were received from the following: Mr. Eric Boman, Paris, *Antiquités de la région andine*, 2 volumes; Mr. and Mrs. E. W. Cramer, Chicago, *Archæology, Birds of America* 7 volumes, 1840-44; Mr. Clarence B. Moore, Philadelphia, *Antiquities of the St. Francis, White and Black rivers, Arkansas*; Mr. Martin A. Ryerson, Chicago, *Carnegie Institution of Washington Publications*, 7 volumes; Messrs. Marshall H. Sadtler and George E. Heye, New York City, *Contributions to South America Archaeology*, 2 volumes; Mr. E. Thurston, Madras, India, *Castes and Tribes of Southern India*, 7 volumes; Ashmolean Natural History Society of Oxfordshire, Oxford, England; *Bataviaasch Genootschap van Kunsten en Wetenschappen*, Batavia, Java; Kir-



WHITE PINE MONOGRAPH.
North American Timber Series.

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Magyar Termeszettudományi Társulat, Budapest, Hungary; Institut de Botanique de L'Université, Genève, Switzerland; India Archaeological Survey, Calcutta; Naturwissenschaftlicher Verein für Schleswig-Holstein, Kiel; Royal Cornwall Polytechnic Society, Falmouth, England; Kungl. Vetenskaps Societeten, Upsala, Sweden.

The list of accessions will also show gifts that are useful additions to the library. The work of correcting duplicate call numbers and cataloguing accessions received in the early years of the library was continued during the year. There were sent to and returned from the Newberry Bindery 876 books, periodicals, and publications of learned societies. For the several card catalogues 19,662 cards were written and filed. Twelve installments of the John Crerar Library cards were received, but were only partly distributed owing to the crowded condition of the card cabinets. The two units or sections of the steel cabinet received in the beginning of the year have proven entirely satisfactory. A sufficient number of cards had accumulated, however, to more than fill these sections before they were received.

DEPARTMENTAL CATALOGUING, INVENTORYING, AND LABELING.—The Curator of Anthropology reports 1,625 catalogue cards written and recorded in the Department inventory, numbering 33 volumes. The most important collections catalogued have been those from the Banawi and Igorot tribes, secured by S. C. Simms on the 4th R. F. Cummings Philippine Expedition; the Ilongot collection (partially) from Northeastern Luzon, made by the late Dr. William Jones; and the Etrurian archaeology collected by Mr. E. E. Ayer. The classified tribal lists have been added to, and the card catalogue for the same has been kept up. The work of labeling has gone on at about the same pace as during 1909, 3,755 standard black labels of various sizes were printed for the Department, of which 2,030 were for Northwest Coast Halls, 1,575 for the East Court, 85 for the Egyptian Hall, and 66 for California Hall.

The cataloguing of the specimens received in the Department of Botany has been kept up to date. The entry books of the Department number 56, in these 297,810 specimens have so far been catalogued, 29,589 of which were entered during the past year. The cataloguing of herbarium specimens progressed satisfactorily throughout the year. Besides organizing the current accessions the Wahlstedt herbarium, consisting of 17,555 specimens, has been completed; 2,025 sheets have been added from the Rothrock herbarium, and 5,250 from that of the University of Chicago. About 3,000 cards have been written and added to the indices of the Department and the index books of the collections kept up to date.

Owing to the large number of specimens received during the year it has not been possible for the Department of Geology, as has usually been the case, to complete within the year the cataloguing of all specimens received. Nevertheless, a considerable portion of the work has been done. To the card catalogue of the Department Library cards have been added during the year corresponding in number to additional books received. The number of cards thus added is 516, making the present total of the Departmental Library catalogue cards, 2,332. To the Department photograph albums 128 prints, chiefly obtained by the Museum expedition to Utah, have been received, making a total of 2,300 prints now in these albums. A considerable amount of labor has been performed by the Assistant Curator of Invertebrate Paleontology in the direction of completion of records by identifying specimens of invertebrate fossils previously catalogued but not identified. About a thousand specimens of Tennessee fossil sponges and about one hundred species obtained in the Logan collection of Cretaceous fossils have thus been identified and recorded. The principal work of labeling has been that of the collections in Hall 67, marbles and building stones, and Hall 70, coal and hydrocarbons. These collections have been labeled throughout, the number of labels prepared and installed being about four hundred for each hall. A number of these were large, descriptive labels. Complete framed labels, twenty-eight in number, were provided for the large specimens on bases in Hall 60. About sixty labels have been printed and installed in Hall 68, clays and sands, and for the remainder of the collection hand-written labels to the number of about five hundred have been provided, so that use may be made of the collection until printed labels are completed. Other miscellaneous labels for the economic collections to the number of about sixty have been printed, and about one hundred and fifty paleontological labels chiefly for the fossil sponges of the Head collection. The total number of printed label forms provided and distributed during the year was, therefore, about one thousand. Copy for four hundred and seventy-five labels was in addition prepared and has been placed in the hands of the printer.

Cataloguing and labeling of specimens in the Department of Zoology has been attended to so far as time and pressure of other business would permit, but it has been only possible to do little more than keep pace with new accessions in this work. Approximately 1,300 catalogue entries have been made, including 600 in Mammalogy, 600 in Ornithology, and 40 in Oology. Of the specimens thus catalogued, the mammals have been recorded in the systematic card catalogue.

The year's work on catalogues and inventorying is shown in detail below.

	No. of Record Books.	Total No. of Entries to Dec. 31, 1910.	Entries during 1910.	Total No. of Cards Written.
Department of Anthropology	33	114,280	1,272	114,653
Department of Botany	56	297,810	29,589	.....
Department of Geology	20	112,495	9,414	6,763
Department of Zoölogy	40	87,830	5,624	28,718
The Library	13	80,037	8,000	109,962
Section of Photography	6	87,139	6,377	.....

ACCESSIONS.—Most of the accessions acquired during the year by the Department of Anthropology were gifts. Through Mr. R. F. Cummings more than 4,000 ethnological specimens from Igorot and Ilongot tribes of Northern Luzon, the Negrito of Bataan and the Bukidnon and Bagobo of Mindanao, were added to the Philippine collections. Full notes, photographs, and measurements accompany the collections. Mr. Barbour Lathrop, of Chicago, presented a magnificent royal sarong collected by himself in Jokjokartar, Java. Mr. T. A. Hagerly donated a bronze figurine of the Goddess Isis; Mr. E. E. Ayer, an Etruscan jar. A collection of spears, arrows, knives, etc., from Congo and the Soudan; Etruscan burial urns of terra cotta and alabaster, as well as vases of terra cotta, and gold and silver jewelry from Kabyle tribes of Algeria, Africa, was presented by Mr. Stanley Field, Mr. Edward E. Ayer, Mr. Watson F. Blair, Mr. George Manierre, Mr. George F. Porter and Mr. Richard T. Crane, Jr. Through Mr. William J. Chalmers and Mr. Byron L. Smith, the Illinois archæological material was increased by the W. R. Head Collection. Mr. Homer E. Sargent enriched the Salish collections by the addition of 75 specimens, collected by J. A. Teit. The gift comprises baskets, bags, matting, clothing, cradles, necklaces, robes, pipes, toys, spears, stone implements, shields, etc. From Dr. Seemeyer of the National Ethnological Museum, Budapest, was obtained, by exchange, a lot of photographs illustrating the physical types and home life of the different peoples of Hungary. Of the purchased accessions of special interest and great value in the study of Belgian archæology is the collection of 725 objects purchased from Baron Alfred de Lœe of Brussels. This collection represents material from flint quarries and workshops, casts of objects of the Bronze and Iron Ages, pottery of the Belgian-Roman Epoch, and a number of originals of the Frank Epoch. Twenty Navaho ceremonial masks were secured from J. L. Hubbell of Ganado, Arizona. Museum funds in the hands of Alfred R. Brown brought together a collection

collected and objects from Andaman and Nicobar Islands, which adds considerably to the previous small collection from these islands.

The more important collections that have been added to the organized herbarium during the year are the following: J. C. Blumer, 356; Broad-wax, 2, 12, 13, 14; W. C. Cusack, Oregon, 187; R. A. Dixon, Texas, 143; W. W. Engelman, Atlantic States, 95; A. D. E. Elmer, Philippine Islands, 184; Geological Survey of Canada, Dominion of Canada, 343; A. A. Heller, Montana, Utah, Nevada, and California, 698; O. E. Lanang, Jr., Illinois, Indiana, and Michigan, 128; New York Botanical Garden, Florida, Bahamas, and West Indies, 2,520; C. R. Orcutt, Mexico, 1,234; Peabody Museum, European Mosses and Lichens, 2,592; H. H. Smith, Georgia, 437; H. A. Towne, Washington, 107; University of California, Mexico, 326; United States National Museum, Idaho, Oregon, Washington, etc., 917. In addition to these accessions there have been a large number of smaller ones which appear in the detailed list of accessions of this Department. Accessions of economic material have been very small, merely a few items of added interest. Additions to the organized herbarium during 1910 arranged by localities are shown in the following table:

	Added to Herbarium in 1910	Total now in Herb. m.
North America		
Canada (except Alaska)	6	1,956
Alaska	86	421
Arizona	1	20
British Columbia	155	948
Vancouver Island	194	418
Puntchariwick Island	3	12
Franklin	1	1
Manitoba	5	10
Maritima	62	284
New Brunswick	12	582
Newfoundland	4	150
St. John's Island	34	34
Ontario	127	462
Borden Island		
St. Peter	82	84
St. George	1	1
Quebec	27	72
Saskatchewan	102	395
Virginia	22	74
Yukon	66	120
Newfoundland	1	465
Labrador	7	170
Greenland	2	159

	Added to Herbarium in 1910.	Total now in Herb'm.
North America:		
United States (in general)	11	11
Alabama	168	961
American Plains	5	93
Arizona	515	7,149
California	652	17,421
Santa Catalina Island	1	24
Colorado	11	6,765
Connecticut	25	306
Dakota (in general)	12	32
Dakota (North)	158	182
Dakota (South)	19	103
Delaware	268	1,098
District of Columbia	18	1,833
Florida	1,592	17,579
Florida Keys	139	638
Georgia	129	4,321
Idaho	362	1,284
Illinois	514	16,601
Indiana	581	4,021
Indian Territory	106	215
Iowa	4	1,286
Kansas	29	250
Kentucky	6	650
Louisiana	46	991
Maine	42	1,132
Maryland	47	780
Massachusetts	168	2,220
Michigan	139	2,220
Minnesota	98	687
Mississippi	9	1,869
Missouri	320	971
Montana	205	3,187
Nevada	245	646
New Hampshire	102	1,079
New Jersey	49	1,541
New Mexico	3	2,269
New York	34	4,806
North Carolina	322	1,449
Ohio	98	1,460
Oklahoma	5	166
Oregon	587	5,500
Pennsylvania	88	6,579
South Carolina	72	619
Rhode Island	2	474
Tennessee	221	902
Rocky Mountains	4	731

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Number of Species	Added to Herbarium material.	Total now in Herb'm.
North America		
Canada	61	6,118
Manitoba, British Columbia	4	1,394
Quebec	610	1,929
Vermont	480	1,782
Ontario	360	1,438
Washington	238	4,529
West Virginia	26	1,280
Wisconsin	15	760
Wyoming	26	763
Yellowstone National Park	1	265
Mexico, in general	1,753	26,604
Chihuahua	28	28
Lower California	16	1,648
Cerro del Popocatepetl	1	28
Yucatan	101	4,685
Guatemala, El Salvador	1	172
Central America		
Costa Rica	3	3
Guatemala	1	2,142
Ricoon Island, Honduras	1	21
West Indies, in general	1	4
Bahamas		
Anguilla Island	1	135
Antigua Island	4	1,268
Cuba Island	1	447
Cayo Cay	3	36
Eleuthera	2	667
Grand Turk Island	1	73
Great Bahama Island	5	625
Great Exuma Island	6	206
Inagua	2	443
New Providence	11	2,397
Watling Island	2	460
Cuba	453	5,546
Jamaica	327	6,383
Puerto Rico	1	3,970
Saint Domingo	230	472
South America		
Brazil	8	263
Chile	1	159
Colombia	6	2,524
Peru	3	8
Uruguay	6	133
Venezuela	6	965
Tobago Island	54	164
Antarctic Islands	7	8
Madeira Islands	3	14

	Added to Herbarium in 1910.	Total now in Herb'm.
Great Britain (in general) . . . . .	...	1,290
England	1,387	1,495
Isle of Wight	3	33
Ireland	9	9
Scotland	364	365
Hebrides Islands	1	1
Arran Islands	1	1
Wales	28	28
Europe		
Austro-Hungary	944	5,802
Belgium	113	183
Crete Island	5	5
Cyprus Island	1	1
Denmark	371	372
France	2,072	3,536
Germany	1,478	5,529
Greece	21	489
Holland	1	14
Italy	700	1,617
Corsica	46	47
Sardinia	50	52
Sicily	24	116
Norway	904	996
Portugal	4	5
Russia	24	1,255
Finland	11	19
Lapland	95	106
Poland	6	48
Roumania	4	4
Spain	197	243
Minorca Islands	10	10
Spitzbergen	5	5
Sweden	8,502	8,964
Gotland Island	195	196
Switzerland	721	1,736
Asia		
Afghanistan	1	2
Asia Minor		
Turkey	1	179
Ceylon	2	8
India	11	738
Java	1	24
Johore	8	8
Persia	1	13
Africa (in general)	5	3,837
Algeria	58	66

	Added to Herbarium in 1910.	Total now in Herb. m.
Algeria		
Egypt	1	10
Nubia	2	766
Argentina		
A. V. C. (Argentina)	206	1,396
Argentina (land)	1	1
Argentina (Island)	...	275
New Zealand	9	19
Brazil	448	2,742
Total increase of the organized herbarium during the year 20,580 specimens.		

The organization (during the mounting, cataloguing and installation) of the new material in the herbarium is expressed in the following table:

	Estimated contents	Fully organized	To be organized
Reichenbach	22,510	8,027	14,483
Hilleb.	14,603	5,264	9,339
Baker	...	31,759	...
Paterson	...	37,878	...
Small	8,671	8,422	249
Small	21,528	8,814	12,714
Millspaugh	...	5,001	...
Hutchinson	...	7,079	...
Herb. of Chicago	45,000	19,210	25,780
Waldstedt	...	17,556	...

In the Department of Geology the most important accession by gift was that of the Head Collection of fossils. This collection, numbering over eight hundred specimens, was kindly presented by Messrs. William J. Chalmers and Byron L. Smith. The collection is especially noteworthy as a representation of North American Paleozoic sponges, of which it is probably the largest and finest collection ever made. Besides large numbers of Tennessee sponges of Niagara age there is a fine representation of sponges from the Chicago area and of Trenton sponges from Dixon, Illinois. Most of these have been obtained from localities no longer accessible. Much of this material has never been described and will afford new genera and species. Among single specimens a large one of *Astracospongia* showing the star-like structure of the domes deserves special mention. Additional specimens to the number of about three thousand comprised in the collection consist chiefly of invertebrate fossils from various localities in the Mississippi basin, and include much excellent exhalation material, among which may be mentioned a fine slab of Le Grand, Iowa, crinoids and large specimens of fossil plants from the Coal Measures. A series of fossil insects from the Florissant beds of Colorado gives a representation of this



GROUP OF GORILLAS (*Gorilla gorilla*).

From the Congo Region, Africa. Male, female, and young.

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occurrence hitherto lacking in the Museum collections. An important series of books was also obtained with the collection in number about three hundred. Especially important are works relating to fossil sponges of which a very complete collection was obtained. Other books obtained with the collection were of special value in completing sets of Geological Surveys previously possessed only in part. Among other gifts of importance the following may be mentioned: A complete series of ores and specimens representing various stages of concentration of the copper ores of Bingham Canyon, Utah, donated by the Utah Copper Company; a large amethystine twin crystal of calcite from Joplin, Missouri, presented by F. P. Graves; a section of the Shrewsbury meteorite presented by F. Justice Grugan; three slabs of Westfield, Massachusetts, verd antique of standard museum size presented by the Westfield Marble and Sandstone Company; fifteen specimens of sand-barite concretions presented by Prof. C. N. Gould; a series of gold and silver ores of the Porcupine and Cobalt districts of Canada, presented by Thomas H. Rea; a large slab showing fossil brachiopods and worm tubes in relief, presented by A. G. Becker; five specimens of polished Smithsonite of gem quality from Mexico, presented by Charles H. Beers; and a large map of Colorado presented by U. A. Dohmen. By exchange with the British Museum representative sections of the Eli Elwah and Uwet meteorites were obtained, and by exchange with the University of Bristol, Bristol, England, 121 specimens representing 63 species of Paleozoic invertebrate fossils from various localities in Great Britain. From Rev. P. E. Nordgren 56 specimens of invertebrate fossils representing 15 species of Carboniferous and Devonian age from localities in Pennsylvania and New York, were also received by exchange; from A. G. Becker, 82 specimens representing 15 species of Devonian invertebrates; from H. G. Shelby, 12 specimens representing 3 species of Iowa crinoids; and from Julius Böhm a fine specimen of the hydrous beryllium borate hambergite from Madagascar, all by exchange. The most important purchase was that of the entire mass of the Ahumada, Mexico, meteorite. This is a pallasite weighing 116 pounds and is the only meteorite of this group which has as yet been found in Mexico. An exceptionally fine skull of the Tertiary carnivore *Hyænodon*, two specimens of gold of unusual beauty and two relief maps, one of the Malaspina Glacier region, Alaska, and one of the State of Illinois, were also purchased. The Malaspina Glacier map is about 7 feet by 4 feet 6 inches in dimensions and has the vertical and horizontal scales the same. It shows a portion of the lofty St. Elias range with innumerable glaciers extending down the valley to the ocean and bays. Of these

the Malheur Glacier is the largest known outside the Arctic and Antarctic regions. The model also shows fiords, cirques, hanging valleys, moraine lakes, coastal plains, medial, terminal and recessional moraines, and other features of the region. The map of Illinois is 6 feet 7 inches by 4 feet 9 inches in size, and the vertical scale is about four times the horizontal. The rather low relief of the prairies is shown as well as the terminal and recessional moraines of the continental ice sheet. In contrast with these are the sharply incised streams and gorges of the driftless area in northwestern Illinois and in the extension of the Ozark Plateau in the extreme southwestern part of the state. Another topographic type is illustrated by the bottom lands of the Mississippi and Illinois flood plains. The accessions by collection include 133 specimens of the rare minerals and feldspars of Maine collected by the Curator, 40 specimens skeletons and skulls of fossil Tertiary vertebrates collected by the Museum expedition to Utah and 2,400 specimens fossils Ordovician and Devonian invertebrates collected in Iowa by the Assistant Curator of Invertebrate Paleontology.

The total number of specimens of mammals and birds added to the collections is 1,068, of which 1,438 are birds and 530 mammals. A large collection of Gorillas and Chimpanzees, secured from J. F. G. Unklauß of Hamburg, Germany, forms a very important addition to the exhibits of mammals. It consists of seventeen specimens of several species and varieties; most of which are accompanied by complete mounted skeletons. It is undoubtedly the largest collection of African Anthropoids in this country. In the Division of Ichthyology and Herpetology the most important addition were 350 fishes from British Guiana, received in exchange from the Carnegie Museum, and which were collected last year by Dr. C. H. Eigenmann. Dr. Frank Billings and Mr. F. G. Hartwell presented a skin of a large saw fish from Tampico, Mexico, and Dr. Billings also presented the skin of a Tarpon from the same locality. A small but interesting collection of shells was received as a gift from Rev. P. E. Nordgren. In the Division of Entomology the additions consist of local insects collected by members of the staff.

EXPOSITIONS AND FIELD WORK. In September, Dr. Berthold Laufer concluded his labors in China and Tibet under the Blackstone fund with collections comprising 10,000 objects. The ethnology of each country, supplementing and explaining that of the other, properly arranged, will show all phases of thought development and the most important features of culture in Eastern Asia. Returning to the Philippines at the close of 1911, on the 5th Cummings Expedition, F. C. Cole began work

among the Bukidnon of North Central Mindanao. A collection of more than 700 pieces, with photographs, was made from that rapidly changing people. Minor collections were secured from neighboring Mandaya and Manobo tribes. A representative collection and many photographs were obtained from among the Negrito and Bataan. Among the Bagobo, dwelling in four districts around Davao Bay, Southern Mindanao, a collection of 600 pieces fully illustrating their life was made; in addition 12 dozen photographs were taken and measurements made of 50 individuals. Collections are now being made among the Moro of the great Cotabato Valley. Dr. A. B. Lewis proceeded from Huon Gulf, German New Guinea, to Humboldt Bay in August 1909, and thence along the coast to Angriffs Hafen, visiting the coast villages as well as some toward the interior. Using Eitapé, Berlin Hafen, as a base, for a couple of months, the neighboring villages were visited, resulting in a collection of 600 specimens with about 80 photographs. Going then to Alii Island, Seleo, Angel and Tumleo Islands were studied, their inhabitants being pre-eminently manufacturing and trading peoples. From Eitapé a trip was made along the coast westward as far as Aissano, which yielded interesting collections and photographs. From Herbertshöhe, Dr. Lewis went with the government expedition to the south coast of New Britain, visiting en route many north coast villages of that island. Landing at Cape Merkus (Arawe) two months were spent in visiting native villages along the coast, for forty miles in each direction. Returning to Huon Gulf, a stop of two weeks was made at Bukaua and neighboring villages. Then, via Finsch Hafen, Sattelberg, at an altitude of 3,000 feet, among the mountains was visited. Here are Papuan peoples quite distinct from the Melanesians of the coast. Photographs were made and a small collection secured from the Hube, a cannibal tribe living about 100 miles inland. From Friedrich Wilhelms Hafen short excursions were made on Siar and Rageta Islands. In May, Potsdam Hafen was reached. Native villages and Vulkan Island were visited, after which headquarters were established on Hansa Bay near Awar and other native towns, forming a group of the highest type of culture to be found on the coast of German New Guinea. A month was spent in coast villages east and west of Potsdam Hafen. After some time spent in various native villages, both on the coast and inland, on August 9th, the Kaiserin Augusta River was entered on the steamer Siar. Only a portion of the eight days spent on the river was given to collecting. A study, however, was made of the culture along its banks. After many delays, due to various causes, Herbertshöhe was reached near the end

of the month. September and October were spent in packing collections, studying special industries and visiting the Sulka country at Mape and the neighborhood of Mt. Varzin. Very rare Sulka and Baining masks and other things were obtained. Early in November Dr. Leach left for the British Solomon Islands. He has made a careful study of the culture of these different regions, Berlin Hafen and Huna Gulf in German New Guinea and the southwest coast of New Britain, also full collections in those regions, supplemented by many ethnographies. Many scattering specimens have been secured from other regions which supplement the fine collections already possessed by the Museum.

The Dendrologist has completed his work in northern Georgia bringing in from that field 300 elements toward the North American Forestry monographs now preparing for installation. He then proceeded to the Pacific Coast where he will continue uninterruptedly in the field until he has secured the elements of the species to be represented from the region west of the Rocky Mountains. His first carload of material from the Coast has already reached the Museum. Together with his dendrological work he is making general collections for the economic and herbarium series. Roy A. Dixon made a trip to Texas, collecting in Walker, Montgomery and Harris counties; he secured 143 species for the herbarium and 477 duplicates for exchange. O. E. Lanman, Jr., continued his local collecting, returning 128 specimens for the herbarium and 470 duplicates for exchange.

During the latter part of the summer, a number of large feldspar quarries in Maine were visited by the Curator of the Department of Geology for the purpose of securing specimens of the rare minerals contained in the pegmatites and a series illustrating the feldspar industry. Quarries in Auburn, Poland, Hebron, Norway, Georgetown and Topsham were visited and from nearly all of them valuable material was obtained. At Poland the rare good fortune was had of being present when one of the most valuable pockets of gem tourmaline ever found was opened. The opportunity was improved to collect series of the mineral from the top and bottom of the pocket toward securing some of the gem material at a later date. Some excellent specimens of astatine and of the rare mineral herderite were also obtained at this locality. At Georgetown some large specimens of white and yellow beryl were collected and at Hebron rare forms of columbite, triphylite, and other rare minerals. At all the quarries typical specimens of the feldspar and pegmatites mined were obtained and at the adjoining mill various grades of the ground product. A striking series of trap

dikes in granite was also collected, one of the slabs being 26 by 14 inches in dimensions with a dike three inches in width traversing it. The Assistant Curator of Paleontology and party spent about three months in northeastern Utah collecting Eocene mammals. Search for specimens was first made in clay strata near Vernal which had yielded some good material earlier to collectors, but no satisfactory returns were obtained by the Museum party. In the adjoining sandstone ledges, however, good showings began to be discovered and these were worked with excellent success during the remainder of the stay. Moreover the fauna proved to be different from that which had been obtained in the clays. The horizons worked ranged from the lowest to the upper measures of the Uintah formation in a portion of the so-called "Uintah desert," lying in the basin of the White River. Most of the fossils were found at levels of from 700 to 800 feet above the river. Owing to the arid conditions work was difficult and slow, since much time had to be consumed in hauling horse-feed and other supplies distances of thirty and more miles, and some of the work had to be done from a dry camp. Furthermore, owing to the thickness and toughness of some of the ledges, considerable drilling and blasting were necessary in order to secure specimens. Representative specimens of at least ten Eocene vertebrate genera were obtained, belonging mostly to the amblypods and titanotheres. Of the amblypods the best specimen obtained was a skull nearly three feet in length of the six-horned *Eobasileus*. This skull will make a striking exhibition specimen. Another form of which a good representation was obtained was *Dolichorhinus*. This animal seems to have been an aberrant branch of the titanotheres and is known only from the Eocene. Its skull is of peculiar and striking form, being shaped somewhat like that of the horse but with a cranium nearly as long as the face. No considerable part of the skeleton of the animal has ever been found before, but from the material collected by the Museum party it is probable that two practically complete skeletons will be secured. Another interesting find was that of a fine crocodile skull about two feet long and a lower jaw of a creodont (early carnivore) about sixteen inches long, indicating an animal larger than a polar bear. A preliminary list of the material obtained is as follows: *Uintatherium*, two skulls, one pelvis; *Eobasileus*, one skull; *Dolichorhinus*, two skeletons, six skulls, three lower jaws; *Telmatherium*, seven skulls, five lower jaws; *Palaeosyops*, two skulls, two lower jaws; *Mesonyx*, incomplete skull and jaws; *Crocodylus*, one large skull; *Tillotherium*, incomplete skull; unidentified creodont, one lower jaw; unidentified artiodactyls, two incomplete skulls; testudo, three carapaces and plastrons.

Nearly all the genera had hitherto been represented in the Museum collections. About twenty-five specimens of modern reptiles were also collected and some representative specimens of the gilsonite mined in the locality. The Assistant Curator of Invertebrate Paleontology spent about three weeks in July in northeastern Iowa, collecting Ordovician and Devonian fossils. Near Clermont strata of Trenton and Lower, Middle, and Upper Maquoketa age afforded representative collections, the Trenton fossils being principally gastropods and cephalopods, and the Maquoketa brachiopods, trilobites, sponges and worm tubes. Not only was the quality of the fossils obtained from these localities particularly good for exhibition and study purposes, but also several species obtained will doubtless prove to be new. About 1,200 specimens representing 80 species were in all obtained from these strata. The kind assistance of Dr. Frederiek Becker and his son A. G. Becker, both in giving information and in taking part in the actual work of collecting in this locality, was of much value. In search for Devonian fossils localities near Independence, Randalia, West Union, and Fayette were visited and desirable material obtained from all of them. Near Independence seven quarries were visited and about 500 specimens secured, representing 54 species of brachiopods, corals, etc., and seven specimens of a rare Devonian sponge. A number of specimens of agates, concretions, rocks, and clays were also collected here. The locality near Randalia yielded about 500 specimens of brachiopods, representing 15 or 20 species, and at West Union and Fayette small, representative collections were obtained. All the material collected was practically new to the Museum collections and some, as has been stated, will probably prove to be new to science.

No important field expeditions were conducted in 1910 by the regular members of the Zoological staff. Assistant Curator W. H. Cressel left early in January for London, England, taking with him for study and determination the greater part of the large collection of African mammals secured by the Museum African expedition of 1905-6. He returned in March having been most courteously received by the staff of the British Museum of Natural History and having satisfactorily identified the material by comparison with the many types and figured specimens in the London institution. Owing to the confused and incomplete state of the knowledge of African mammals, especially those of small and medium size, and to the almost total lack of specimens on this side of the Atlantic, this was the only way in which the material could be properly checked and authoritatively named. It is due to science and as a standard of reference for future study in

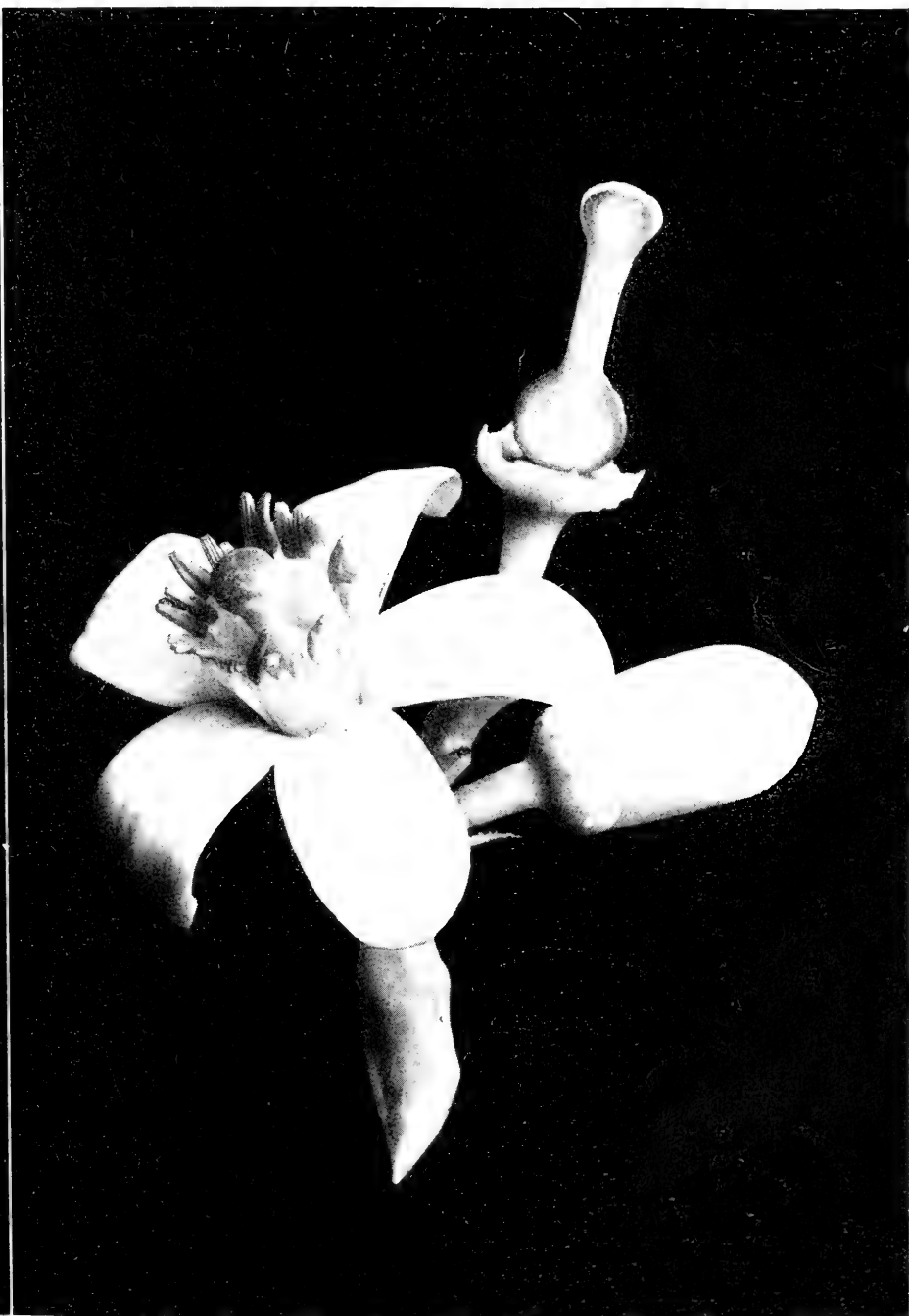
this country is thus very greatly increased. The complete report on the collection has not yet been published, but two preliminary papers have appeared describing one genus and twenty-eight species and subspecies of mammals new to science which are contained in the collection. Several short expeditions for local field work were undertaken with successful results. Mr. Osgood spent two weeks in August in northern Wisconsin and a few days in northwestern Illinois collecting small mammals. 111 specimens were secured. Later, in November, through the kindness of Mr. Cyrus H. McCormick, Mr. Osgood spent two days at White Deer Lake, near Champion, Michigan, making photographs and preliminary arrangements for securing material for a group of beavers. Mr. C. A. Corwin, artist, and Mr. Julius Friesser, taxidermist, spent ten days in July at East Tawas, Michigan, securing material for preparing bird groups. Mr. Corwin later spent several days at Dowagiac, Michigan, and a week in the vicinity of Yule, North Dakota, making sketches and color notes for use in background work. In October, L. L. Pray, taxidermist, spent two weeks at Dowagiac, Michigan, securing material for the preparation of groups of small mammals. The services of Mr. Henry F. Raven, of Venezuela, were secured for six months' work in Costa Rica and Venezuela as collector of mammals and birds.

Following is a list of the expeditions since the date of the last report:

Locality.	Collector.	Material.
Northern Georgia	H. H. Smith,	Timbers.
Utah	E. S. Riggs,	Vertebrate fossils.
German New Guinea . . .	A. B. Lewis,	Ethnological.
Costa Rica and Venezuela .	H. F. Raven,	Birds and mammals.
Iowa	A. W. Slocum,	Invertebrate fossils.
Maine	O. C. Farrington,	Minerals.
Illinois, Wisconsin and Michigan	W. H. Osgood,	Mammals, birds, and group material.
Philippine Islands . . .	F. C. Cole,	Ethnological.
Ohio	C. L. Owen,	Preliminary investigation.
Northwestern University, Milwaukee, Racine, Beaver Dam	C. B. Cory or assistant,	Examining and comparing specimens in local museums.
China and Tibet	B. Laufer,	Ethnological.
Texas	R. A. Dixon,	Herbarium specimens.

INSTALLATION, REARRANGEMENT, AND PERMANENT IMPROVEMENT.—Two cases of Batak and three of Apayao material, secured by F. C. Cole in Northern Luzon, have been installed in Hall 57, now temporarily filled with

Chinese and Tibetan ethnology collected by Dr. Laufer. Hall 56 has for some time past been used for the storage of Asiatic ethnology. This material has been installed in 27 standard cases, comprising five cases of India, five of Ceylon, two of Siam, two of Burma, seven cases of the H. N. Higinbotham Korean Collection, three of Ainu and three of Saghalin and Siberian tribes, including the Gilyak, Orochon, Tungus, Goldi, and other tribes. A number of boats, for a long time in storage in the East Annex, coming from the former Department of Transportation and various collections, have been placed in their proper places in Halls 30, 31, 45, 52, 56, 57 and Alcoves 83 and 84 of the East Court. Hall 40, formerly devoted in part to Bontoc Igorot ethnology, is now being reinstalled in standard cases, to contain all Igorot collections, most of which material was secured by Assistant Curator Simms on the first and fourth Cummings Philippine Expeditions. This necessitates the removal from this Hall of two cases of Moro ethnology, which will be reinstalled with Moro material now being collected by Mr. Cole. Two Etruscan vases, gifts of Mr. E. E. Ayer and Mr. C. L. Hutchinson, have been placed in Alcove 120, North Court. In Hall 41 the life-size Forge Group of five figures, illustrating the manufacture of iron weapons by the Tinguian tribe of Philippines, has been completed, also the miniature Tinguian Village, consisting of houses with many and varied accessories. A facsimile of the Papyrus of Ani, the gift of Mr. E. E. Ayer, has been installed upon the North Wall of the Egyptian Hall, necessitating the placing of the mortuary textiles in frames, still higher. This reproduction, nearly 80 feet in length, was carefully mounted upon a backing, in long sections, of three-ply veneer, covered with wire netting and papier-maché. The frame surrounding the whole was also put up in sections, so that, if desired the whole could be removed without damage. In Hall 1, an acorn granary from the Coahuilla Reservation in southern California, has been installed, upon a platform of poles. The Algerian gold and silver jewelry mentioned in the list of gift accessions was temporarily installed in two cases on the South Wall of the H. N. Higinbotham Hall. A life-size Kwakiutl figure has been modeled and cast, upon which is to be shown the large Hamatsa raven mask of a Cannibal Dancer. A life-size figure has been modeled and cast for the Samoki pottery maker, one of the four groups to be shown in a new case illustrating Philippine industries. About 40 small Igorot figures, modeled by J. A. Burt, have been cast for better preservation. Mr. Stanley McCormick has made provision for the completion of the set of 13 Oraibi altars, the reproduction of which was undertaken several years ago. In addition, two or three of the most famous Hopi shrines will be reproduced, as well



ENLARGED FLOWER CLUSTER OF THE GRAPE-FRUIT.
Illustrating the floral characters of the family Aurantiaceae.

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as one of their typical springs at which offerings are deposited. In addition, manuscript will be prepared for publication, labels, etc. For this purpose, the services of H. R. Voth has already been secured, and he is now at work upon his notes, drawings, photographs, etc., as well as engaged in shaping the various figures needed for the altar work.

In the Department of Botany material for general economic collections having been exhausted by the large installations accomplished last year, there remained no complete case display to accomplish this year. The work upon the installation has, therefore, been that of finish rather than that of enlargement. Specimens in 84 cases, installed previous to 1909, have been readjusted to render their appearance uniform with the newer and more satisfactory installations. This required the introduction of some modern mounts and labels and repainting with the later and "flatter" background and mount color. Further material has been added to 7 cases; 3 cases have been completely reinstalled; and 2 cases installed with new material. Despite many setbacks, caused by delay of the owner of the modeling shop in putting the same in proper condition for occupancy, satisfactory results have been obtained. A glass blower and a helper were regularly added to the staff. The following reproductions and models have been executed and placed on exhibition: A life size reproduction of a complete Sweet Potato plant showing the tubers; enlarged sectional flowers of the Akee, the Mangrove, the Pomegranate, the Sea Grape, the Sour Sop, the Grape Fruit; the male and female flowers of the Papaw (*Carica*) and the male flower of the White Birch; a full flowering rachis of the Papaw (*Carica*) and enlarged portions of the male and female catkins of the White Birch; a branch with leaves and fruits of the Pawpaw (*Asimina*), ripe and sectional fruits of the same; a large sectioned fruit of the Papaw (*Carica*) and a series of five reproductions illustrating the development of the fruits of the Mangrove. In addition to these, complete reproductions of large branches of Akee, Sea Grape, Pomegranate, Sour Sop, Grape Fruit, and Mangrove; a complete summit of a Pawpaw tree and complete plants of Aloe and Anthurium are ready for assemblage and finishing and the elements of all the various studies made by Dr. Dahlgren last year in Jamaica are ready for reproduction. The glass blower has reproduced a large number of complete pieces, such as several natural sized spikes of the minute flowers of the Sea Grape and the Akee, complete clusters of Grape Fruit; Papaw flowers, flowers of the Mangrove, Aloe, and Pomegranate; and many hundreds of piece parts of plants (for instance, to show the necessities of this work, 1,200 fruits

100 Anthers, 116 flowers and buds of Aloe in all stages of development; 122 minute stamens of the Pomegranate; 125 enlarged stamens of the same; 130 minute ovaules of Carica, etc.).

In Higginbotham Hall some specimens of gems and gold have been installed and a spring button operating outside the case has been provided for one of the specimens of chalcedony containing liquid. In Hall 35 a representative series of the sponges of the Head Collection has been installed. The specimens exhibited occupy one wall case. For the most part the specimens are mounted on standard black board tablets, but species possessed in an especially large number are shown on oval. Species especially well represented are several of *Astylospongia*, *Hindia sphaeroidalis* and *Palaeomanon cratera*. Among Trenton sponges the genus *Zittella* is well represented. Polished sections of a number of sponges with lenses mounted before them in order that the beautiful interior structure may be better seen also form a part of the exhibit. In Hall 36 some of the most striking specimens of the Burlington group of corals of the Fultz collection have been installed in a floor case. The specimens have been, for the most part, mounted on tablets, but one of which are in use, and a typical exhibit of the beautiful forms has thus been obtained. Another change in this Hall has been to move the miscellaneous Triceratops bones to a case adjacent to the skull. In order to obtain room for the exhibition of the increasing number of Tertiary fossil mammals obtained in successive Museum expeditions, a complete readjustment of the wall cases in Halls 36 and 35 has been made and the specimens in them rearranged. As now arranged an entire case is devoted to the White River vertebrate fossils, and two cases to Loup Fork vertebrate fossils. Among the important specimens of Loup Fork age placed on exhibition here for the first time are a complete skeleton of *Promerycochaerus* obtained by the expedition of 1906 in Nebraska, and a skeleton of the Miocene camel-graße *Oxydactylus longipes* obtained at the same time in Wyoming. The *Promerycochaerus* skeleton is fully articulated and mounted standing, that of *Oxydactylus* has not been articulated and is exhibited in a prone position. The *Promerycochaerus* skeleton is one of few mounted ones in existence. The animal was a member of the Oresbont group, of which it was one of the last and largest representatives. The whole group became extinct before Pliocene time. In Hall 60 a number of specimens representing extinct whales and dugongs of the Pliocene have been placed on exhibition. In Hall 61 the position of the case containing them has been changed so that a broader passageway is secured. In Hall 62 the Ahumada meteorite and some smaller spec-

imens have been placed on exhibition. The large map in this Hall, showing places of meteorite falls in the United States, has also been brought up to date by the addition of all recent falls. New specimens have here and there been added, with some rearrangement, in Halls 63 and 64. In Hall 65 the collection of sand-barite concretions received from Prof. Gould has been added to the concretionary series and the series is now as a whole perhaps the largest and most complete to be seen in any museum. Some small fulgurites have also been mounted and added to the collection of fulgurites in this Hall and some large cave specimens not previously exhibited have been placed on exhibition. In Hall 66 a considerable rearrangement of the specimens in the wall cases has been made in order to permit the introduction of new material, the most important of which is the series of trap dikes in granite obtained by the Curator in Maine. Additional marble slabs received during the year have been installed in Hall 67, and a number of new labels, some of them descriptive, placed with the corresponding specimens. Each important series of marble in this Hall is now provided with a fully descriptive group label. From Hall 69 the entire series of specimens was removed, the cases and specimens cleaned, and the specimens reinstalled. This work will continue to be necessary at intervals in this Hall until dust-proof cases are provided. In Hall 70 the metal trays containing specimens in the form of powders or lumps have been removed, painted to a color uniform with the interior of the cases, and reinstalled. The appearance of the collection as a whole has thus been improved. Labels have also been installed with the collection throughout, the standard label holder being used. Hall 71, devoted to petroleum and its products, has been entirely dismantled preparatory to a complete recasing of the collection. Funds for this purpose have been generously provided by the Standard Oil Company and the construction of the cases is under way. Before reinstallation a complete renovation of the Hall will be made. The principal addition to the installation in Hall 72 has been that of a working model of a twenty-stamp gold mill, which was constructed in the Department after designs made by the Assistant Curator. The model is four feet six inches long, three feet six inches high, and eight inches deep. It is placed in a wall case on the west wall of the Hall. It represents a section of a gold mill with the house in skeleton. Running from a mine not represented is an elevated tramway upon which an ore car is shown. At the end of the tramway is a grizzly or screen with its pile of ore, followed by a crusher of the Blake type modeled in wood, and an ore bin of standard type. This bin is provided with a glass front which permits a view of the crushed ore

within. From the bin two chutes lead to the two ten-stamp mills which are the prominent features of the model. Each mill, exclusive of its concrete foundation, is one foot high and ten inches long. Each consists of a heavy oak framework which supports ten steel stamps working upon steel anvils in a wooden mortar equipped with copper screens. The shaft, cams, and tappets are all of steel while the boxes in which the journals run are, like those of the full-sized mills, of cast iron. The flywheel, which is of wood, is driven from a main driving shaft by a leather belt. In one mill the screens in front of the mortar are shown removed to permit a view of the interior. In front of the mill are shown amalgamated copper plates and a launder. The entire model has been built according to the plans and specifications of a standard mill and has been modified only in such ways as the small size has made necessary, or as changes were required in the relative positions of the parts in order to place the model within the space available. The mill has been so constructed that if power were available, it could be run daily without injury, and with a few inexpensive alterations it could be rendered capable of actually treating ore. Another model constructed in the Department and installed in a floor case in this Hall represents a Hartz jig of standard type. Owing to the scarcity of space the model was made upon a small scale, although the details of its structure are complete. The height of the model is six inches, length eight inches, and width four and one-half inches. It is built of wood except the shafting, wheels and eccentrics, which are of steel. The jig is represented as treating a low-grade silver ore, taking the ground ore and yielding three products, gold ore, silver ore, and waste. Like the ten-stamp model this jig is a working model which upon the application of power could be run continuously. In fact the ore beds shown with the model were made by the operation of the model itself. Maps of Colorado and Nevada showing the localities and names of the gold and silver mining districts of those states were prepared by the Assistant Curator and placed upon the walls of the Hall adjacent to the corresponding collections. The work is intended to be continued until all the important mining localities shall be represented. In Halls 76 and 77 the large maps of the Grand Canyon, Eureka Basin, and Auvergne have been framed, and the large photograph of Miles Glacier presented by L. V. Kenkel has been framed and placed on exhibition. There have also been framed and installed in Hall 77 the recently purchased maps of Illinois and the Malaspina Glacier. It was found that the screws used to hold the case sashes in place in Skiñ Hall were working loose owing to the wear of the wood. Accordingly metal sockets were provided for

all the sash screws and in place of screws of ordinary type the sash were all fitted with bronzed screws with an interrupted slot of the standard Museum pattern. Both the appearance and safety of the cases have been much improved by this change. In the same Hall considerable rearrangement of the collections has also been made in order to permit the introduction of new material. This material consisted chiefly of series of the rare earths which are coming into increased notice and for which inquiries are often made by visitors. In order to secure the space needed, considerable selection was made among the iron ores, especially those of Lake Superior, so that those of essentially similar appearance might be represented by the smallest possible number of specimens. It was thus found possible to reduce the space which this collection occupied without lessening the educational value of the series. In the readjustment selection was also made so that the series illustrating the lesser metals, such as mercury, tin, aluminum, nickel, cobalt, etc., should indicate as nearly as possible by their extent the relative importance of these metals. Thus the symmetry of the collections has been much improved and space gained for addition of new material. These changes have, however, been restricted to specimens in the wall cases along the south and southeast walls. In one of the floor cases the group of specimens presented by the Utah Copper Company has been installed, space having been secured by the withdrawal of some of the specimens of Lake Superior copper. The new material consists of two large specimens illustrating oxidized and sulphide ore and a series of crushed specimens representing the several stages by which a rich concentrate is obtained from the original low-grade material. A large specimen of martite from Utah has been installed in a floor case, supplementing other large specimens of iron ores. Supplementing this exhibit a series of models illustrating the modern blast furnace and its evolution is in preparation for exhibition in this Hall. The discontinuance of chemical work in the Museum building having been deemed advisable, the portion of Hall 75 previously used as a chemical laboratory has been dismantled and the hood, desks, and apparatus previously in use there have been removed to a building on Jefferson Avenue where partial accommodations have been secured. In the absence of sufficient accommodations the Executive Council of Armour Institute very generously placed the facilities of the chemical laboratories of that institution at the disposal of the Department and an appreciated use has from time to time been made of these facilities. In the paleontological laboratory the following vertebrate material has been prepared during the year: One skull of *Brontotherium ramosum*

prepared and mounted, one skeleton of *Promerycochaerus* mounted in a new case, one skeleton of *Oligobunus*, one skull and lower jaw of *Hesperomys hortulus*, one skull and lower jaw of *Merycoidodon gracilis*, one skull and lower jaw of *Leptacanthia*, and one skull and lower jaw of *Telmatherium* prepared for exhibition and numerous specimens prepared for identification. The fossil vertebrate material in storage has been thoroughly overhauled and the wrappings of many of the specimens removed to insure their preservation. About one thousand feet of new storage shelving have been erected and the specimens placed upon new shelves in their old numbers. Thus the frequent moving of the specimens which has been necessary hitherto when any particular specimen was desired, and which was more or less destructive to the specimens, will be largely avoided. Of invertebrate fossils about one thousand specimens collected in Wilmington, Illinois, have been cleaned and identified in the laboratory during the year, and some other preparatory work of the same nature has been done.

The storage collections of both birds and mammals have received thorough disinfections and the exhibits of mammals, especially the large groups, have also been treated with insecticide. Considerable material consisting of undressed hides of large mammals and rough skins of smaller mammals remain to be cared for, but the great mass of it has been cleared away and it seems probable that the one man charged with this work will be able to keep abreast of it. During the year, the entire serial collection of birds on exhibition have been overhauled. The specimens were in temporary cases, not dustproof, and in the course of time had become soiled and dusty. All of them have been thoroughly cleaned and such as needed it have been remounted and installed in new cases. Early in the year the first results of the Stanley Field Ornithology Fund were installed and placed on exhibition in the West Court of the Museum. They consist of four large groups of North American birds in one large case divided into four sections, each with a large painted background and reproduction of foliage, soil, rocks, and natural conditions in which birds live. The groups are as follows: (1) The California Condor, showing two adult birds, one standing near its nest in a recess of a cliff and the other with wings at full spread about to alight. Scene in the mountains of southern California. (2) The American White Pelican, showing several adult birds with their nests and eggs, together with other species, such as Cormorants, which are found with them, and characteristic surroundings on a sandy islet in a Saskatchewan lake. (3) The Wild Turkey, four adult birds in the heavy woods of northern Louisiana. The season represented is autumn

and the richly tinted foliage combines well with the black and bronze of the birds. (4) The Water Birds of Quill Lake, Saskatchewan, including 37 birds of various species, as the Canada Goose, Pintail Duck, Blue-winged Teal, Scaup Duck, Widgeon, Gulls, Terns, and Shore birds. About 100 birds for the serial North American and Illinois collections have been mounted and placed on exhibition. Room 22, which contains the exhibition collection of fishes has been improved by several changes and additions of new groups. Four cases not well suited for the exhibition of fishes have been transferred to the Hall devoted to Osteology. Two new cases have been added, containing 15 groups of mounted fishes. Screens have been made for two other cases and these are ready to be put in place and installed as soon as the material now in course of preparation is finished. During the first half of the year attention was devoted to experimenting to devise the best method for preparing groups of fishes for exhibition, with most satisfactory results. Unfortunately work on several groups of fishes was temporarily discontinued last July, due to the illness of the fish taxidermist, Mr. Heim, who was obliged to seek a different climate, but who is now doing work for the Museum in Arizona and it is hoped he will be able to return to Chicago in the near future. Of the several groups placed on exhibition the largest and in many ways the most exceptional is that of the Tiger Shark with her brood of 44 young. This animal is viviparous and the adult was captured at a time when the young were about to be born. The group is probably unique. During the past year the inventory of the great Strecker collection was completed and considerable time was devoted to work on local insects, such as pinning, labeling, and distributing specimens already in the collection and others secured from time to time by the Assistant Curator and his assistant. 2,800 insects have been pinned and labeled. A large number have been determined and placed in the study collection. During the year the work in the Division of Osteology was continued as usual with satisfactory results. Through the courtesy of Mr. William Warwick, Superintendent of the Standard Oil Company plant at Whit-
ing, Indiana, the facilities for work there were continued, and 38 skeletons and skulls were degreased during the summer. The Assistant Curator made some experiments in working out a satisfactory method of exhibiting specimens without shelves, and a paper was written and read before the meeting of the American Association of Museums at Buffalo, New York, May 31, 1910, on this subject. Mr. Gueret also completed the labeling of specimens and card index of Osteological material to date.

PRINTING. — The number of labels, forms, and other impressions turned out by the Section of Printing is shown in the following table:

	Labels.	Other Impressions.
Department of Anthropology	3,744	1,900
Department of Botany	4,817	15,950
Department of Geology	3,012	838
Department of Zoology	72	30,056
Director's Office	9	48,683
Library		12,000

PHOTOGRAPHY AND ILLUSTRATION. — The following table indicates the work performed in this important Section:

	Negatives.	Prints.	Lantern Slides.	Enlargements.	Photomac- rography of Seeds, Skulls, etc.
Director's Office	22	127	10	6	..
Department of Anthropology	569	2,813	..	..	..
Department of Botany	38	251	58	..	15
Department of Geology	94	206	113	..	..
Department of Zoology	198	404	166	1	6
Distribution	..	121	..	..	..
Gift	..	252	1	8	..
Sale	..	561	50	..	..
Totals	921	4,735	398	15	21

Negatives made in the field by members of the staff and developed by the Section of Photography:

Department of Anthropology	10
Department of Botany	96
Department of Geology	108
Department of Zoology	73
Total	287

ATTENDANCE. — The attendance for the year shows an increase of nearly 10,000 over the previous year. The following is the list of school classes (twenty pupils or more) that visited the Museum during the year:

Schools and Location.	Teachers.	Pupils.
Wendell Phillips High — Thirty-ninth Street and Prairie Avenue	1	62
Wendell Phillips High — Thirty-ninth Street and Prairie Avenue	1	42
Blue Island — Blue Island, Illinois	3	30
Kenwood — Lake Ave., corner Fiftieth Street	1	40
Meady Bible Institute — 80 Institute Place		55
Chicago Commons — Fifty-seventh Street and Lexington Avenue		35
Stongate — Blue Island, Illinois	2	20
Newberry — Willow and Orchard Streets	2	61
One Hundred and Ninth Street — Blue Island, Illinois	2	38
Our Lady of Vilna — 2347 South Leavitt Street	2	60

Schools and Location.	Teachers.	Pupils.
Wendell Phillips High — Thirty-ninth Street and Prairie Avenue	2	55
Bismarck — Armitage and North Central Park Avenues	2	72
Saunders — Blue Island, Illinois	6	60
Seymour — Blue Island, Illinois	4	115
Harvey — Harvey, Illinois	1	40
Frances E. Willard — Forty-ninth Street and St. Lawrence Avenue	1	40
Wentworth — Seventieth and Sangamon Streets	1	38
Prescott — Wrightwood Avenue, corner North Ashland Avenue	2	60
Vaclava St. Wenceslaus — DeKoven Street, near Jefferson Street	2	30
Seward — Forty-sixth Street and Hermitage Avenue	1	24
Gallistel — Ewing Avenue, near One Hundred and Fourth Street	1	25
Madison Avenue — Seventy-fifth Street and Madison Avenue	2	74
Scanlon — One Hundred and Seventeenth Street and Perry Avenue	5	74
Motley — North Ada Street, near West Chicago Avenue	1	35
Sherman — Fifty-first Place and Morgan Street	1	42
Pullman — Pullman Avenue and One Hundred and Thirteenth Street	2	94
Burke — Fifty-second Street and Prairie Avenue	2	65
University of Chicago — Chicago, Illinois		40
Agassiz — Diversey Boulevard and Seminary Avenue	1	28
Bryant — Riverside, Illinois	3	55
University of Chicago — Chicago, Illinois		45
Garfield — Fourteenth Place and Johnson Street	1	25
St. Benedict — Irving Park Boulevard and Leavitt Street	4	59
University of Chicago — Chicago, Illinois		24
Immaculate Conception — Thirty-first Street and Bonfield Avenue	2	32
Bryant — Riverside, Illinois		20
University of Chicago — Chicago, Illinois		21
University of Chicago — Chicago, Illinois		22
University of Chicago — Chicago, Illinois		26
University of Chicago — Chicago, Illinois		31
Visitation — Garfield Boulevard and Peoria Street	2	33
Thorp Vacation — Eighty-ninth Street and Superior Avenue	1	25
Graham Vacation — Forty-fifth Street and Union Avenue	10	312
University of Chicago — Chicago, Illinois		29
University of Chicago — Chicago, Illinois		24
Nativity — Thirty-seventh Street and Union Avenue	4	25
Jenner Vacation — Oak Street and Milton Avenue	11	97
University Elementary — Fifty-ninth Street and Monroe Avenue	2	32
University Elementary — Fifty-ninth Street and Monroe Avenue	2	36
University Elementary — Fifty-ninth Street and Monroe Avenue	1	33
University of Chicago — Chicago, Illinois		24
Normal Practice — Stewart Avenue and Sixty-eighth Street	2	37
Francis W. Parker — 330 Webster Avenue	4	22
University Elementary — Fifty-ninth Street and Monroe Avenue	1	22
Normal Practice — Stewart Avenue and Sixty-eighth Street	3	38
Thornton Township High — Harvey, Illinois	2	69
Hyde Park High — Fifty-seventh Street and Kimbark Avenue	1	49

Institution and Location.		Teachers, Pupils.	
Hyde Park High	Fifty-seventh Street and Kimbark Avenue	1	45
University Elementary	Fifty-ninth Street and Monroe Avenue	1	20
Hyde Park High	Fifty-seventh Street and Kimbark Avenue	1	51
Hyde Park High	Fifty-seventh Street and Kimbark Avenue	1	36
James W. Washworth	Lexington Avenue, near Sixty-fourth Street	2	42
University of Chicago	Chicago, Illinois		21
Parsons School	One Hundred and First Street and Union Avenue	1	51
Leavis Institute	West Madison and South Robey Streets	1	35
Holy Trinity	Noble Avenue and Crittenden Street	2	36
Leavis Chaplain	Sixty-second Street and Princeton Avenue	2	27
Waller High	Orchard and Center Streets	2	32
Irving Park	Roscoe and Belmont Avenue	2	25
Chicago Academy of Fine Arts	Madison Street, near Michigan Avenue	1	47
Wendell Phillips High	Thirty-ninth Street and Prairie Avenue		25
Wendell Phillips High	Thirty-ninth Street and Prairie Avenue		30
Carter Practice	Sixteenth Street and Wabash Avenue	2	33
Chicago Kindergarten Association	Chicago, Illinois	5	30
Wendell Phillips High	Thirty-ninth Street and Prairie Avenue	1	33
Wendell Phillips High	Thirty-ninth Street and Prairie Avenue	1	30
Parkade	Seventieth Street and Seipp Avenue	1	32
Henry Clay	One Hundred and Thirty-third Street and Superior Avenue	1	34
Valparaiso University	Valparaiso, Indiana	1	120
Irving Park	Roscoe and Belmont Avenue	1	52
University Elementary	Fifty-ninth Street and Monroe Avenue	1	22
Wendell Phillips High	Thirty-ninth Street and Prairie Avenue		21
Englewood High	Stewart Avenue and Sixty-second Street	3	209
Normal Practice	Stewart Avenue and Sixty-eighth Street	2	33
Wendell Phillips High	Thirty-ninth Street and Prairie Avenue	1	20
University of Nebraska	Lincoln, Nebraska	2	30
Francis W. Parker	330 Webster Avenue	1	24
Hyde Park High	Fifty-seventh Street and Kimbark Avenue	1	36
Blue Island High	Blue Island, Illinois	1	20
Wendell Phillips High	Thirty-ninth Street and Prairie Avenue	1	30
Chicago Latin	1200 Michigan Avenue	2	30
Parkade	Seventieth Street and Seipp Avenue	1	39
Wendell Phillips High	Thirty-ninth Street and Prairie Avenue	1	35
Parkade	Seventieth Street and Seipp Avenue	1	54
University of Chicago	Chicago, Illinois		21
John Spry Vacation	Marshall Boulevard and West Twenty-fourth Street	11	257
University of Chicago	Chicago, Illinois		24
University of Chicago	Chicago, Illinois		20
University of Chicago	Chicago, Illinois		25
University of Chicago	Chicago, Illinois		25
University of Chicago	Chicago, Illinois		40
University of Chicago	Chicago, Illinois		35



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Schools and Location.	Teachers.	Pupils.
Marks Nathan Jewish Orphan — 1243 North Wood Street . . .	1	51
Parkside — Seventieth Street and Seipp Avenue . . .	2	26
Moody Bible Institute — 80 Institute Place . . .		20
Lake High — Union Avenue and West Forty-seventh Street . .	1	42
May — South Fiftieth Avenue, corner West Harrison Street . .	1	20
Jewish Training — 554 West Twelfth Place . . .	5	60
Gresham — Eighty-fifth and Green Streets . . .	2	35
Washington — Morgan and Erie Streets . . .	4	44
Bryant — Forty-first Court near Fourteenth Street . . .	1	20
Joseph Medill — Fourteenth Place near Throop Street . . .	1	39
Marquette — Harrison and Wood Streets . . .	2	21
Normal Practice — Stewart Avenue and Sixty-eighth Street . .	3	49
University Elementary — Fifty-ninth Street and Monroe Avenue .	2	32
Baptist Mission Training — 2969 Vernon Avenue . . .		20
Hyde Park High — Fifty-seventh Street and Kimbark Avenue . .	1	46
Kenwood — Lake Avenue and Fiftieth Street . . .	2	46
Northern Illinois Teachers Association . . .	379	
Wendell Phillips High — Thirty-ninth Street and Prairie Avenue .	1	24
Forest Park — Forest Park, Illinois . . .	1	55
St. James — Twenty-ninth Street and Wabash Avenue . . .	2	27
University of Chicago — Chicago, Illinois . . .		25
Kosminsky — Fifty-fourth Street and Ingleside Avenue . . .	1	39
James Wadsworth — Sixty-fourth Street and Lexington Avenue .		127
Farragut — Spaulding Avenue and Twenty-third Street . . .	1	35
Anderson — Lincoln and Division Street . . .	1	53
University of Chicago — Chicago, Illinois . . .	1	27
School of Education — Fifty-ninth Street and Monroe Avenue . .	1	29

Herewith are also submitted financial statements, list of accessions, names of members, etc.

FREDERICK J. V. SKIFF,

Director.

FINANCIAL STATEMENT.

GENERAL ACCOUNT.

RECEIPTS AND DISBURSEMENTS.

January 1, 1910, to December 31, 1910

RECEIPTS

Cash in Treasurer's hands, December 31, 1909.	\$65,914.41	
Petty Cash on hand, December 31, 1909	739.95	
Dues of Annual Members	1,510.00	
Admissions and Check Rooms	6,371.00	
South Park Commissioners	15,000.00	
Interest on Investments	38,712.88	
Field Endowment Income	137,149.99	
Interest on Daily Balances	1,044.74	
Sundry Receipts and Refunds	2,702.47	
Sale of Guides	181.25	
Stanley Field Ornithology Fund	1,000.00	
Field-Sprague Ornithology Fund	1,321.25	
R. F. Cummings' Philippine Fund	3,000.00	
Joseph N. Field South Pacific Islands Fund	10,000.00	
Huntington W. Jackson Library Fund	40.00	
Standard Oil Fund	2,588.75	
Stanley McCormick Hopi Fund	1,000.00	
Mrs. Timothy B. Blackstone Fund	10,000.00	
Special Donations —		
Bryon L. Smith	\$500.00	
William J. Chalmers	500.00	
Stanley Field	199.61	
George Manierre	199.61	
Watson F. Blair	199.61	
Edward E. Ayer	199.61	
George F. Porter	199.62	
Richard T. Crane, Jr.	199.62	2,197.61
Homer E. Sargent Fund	50.00	
Marshall Field Endowment Sinking Fund	500.00	
Marshall Field Endowment Sinking Fund Income Account	50.00	
New Building, Moving and Furnishing Fund Income	2,900.00	
		<u>\$303,974.3</u>

DISBURSEMENTS

Salaries		\$81,514.98
Guard Service		13,223.40
Janitor Service		7,612.15
Fire Protection		3,350.04
Heat and Light—		
Wages	\$ 3,449.82	
Fuel	6,452.35	
Supplies, Gas, etc.	1,335.67	11,237.84
Repairs and Alterations—		
Wages of Carpenters, Painters, Roofers, etc.	10,800.06	
Material used, paints, oils, glass, lumber, plaster, etc.	1,411.07	
Special Exterior Repairs	6,076.75	18,287.88
Furniture and Fixtures—		
Cases and Bases	12,638.90	
Building Fixtures	2,967.10	
Office Furniture, etc.	323.01	15,929.01
The Library —		
Books and Periodicals	2,196.83	
Binding	705.35	
Sundries	51.97	2,954.15
Sections of Printing and Photography		955.46
Collections, etc., Purchased		15,193.87
Departmental Expenses		5,950.40
Expeditions		5,107.92
Publications		2,237.05
General Expense Account —		
Freight, Expressage and Teaming	7,027.33	
Stationery, Postage, Telephone, etc.	1,136.17	
Northern Trust Company, Custodian Fee	338.66	
Lecture Course Expenses	975.95	
Insurance	245.74	
Sundries	1,098.38	10,822.23
Stanley Field Ornithology Fund		853.65
Field-Sprague Ornithology Fund		1,279.34
R. F. Cummings' Philippine Fund		3,108.80
Joseph N. Field South Pacific Islands Fund		5,600.00
Mrs. Timothy B. Blackstone Fund		10,000.00
Homer E. Sargent Fund		25.15
Guide Account, Ninth Edition		766.52
		\$216,009.84
In Treasurer's hands December 31, 1910	30,724.58	
Byron L. Smith, Treasurer, Endowment Sinking Fund	500.00	
Petty Cash on hand December 31, 1910	739.95	
New Building, Moving and Furnishing Fund Investment	20,000.00	
General Fund Investment Account	36,000.00	87,964.53
		\$303,974.37

ATTENDANCE AND RECEIPTS FROM JANUARY 1, TO
DECEMBER 31, 1910.

ATTENDANCE.

Paid Attendance		
Adults	22,507	
Children	1,500	24.00
Free Admission on Pay Days -		
Children	5,861	
Students	3,206	
Volunteers	942	
Members - Corporate	75	
Academy	43	
Library	6	
Members - Family	115	
Library	662	
Press	6	10.91
Admission on Free Days -		
Saturdays	39,122	
Sundays	144,002	183.12
Total Attendance		218.04
Highest Attendance on any one day (August 28, 1910)		6.77
Highest Paid Attendance on any one day (September 5, 1910)		58
Average Daily Admissions (365 days)		59
Average Paid Admissions (260 days)		8

RECEIPTS.

Galleries of 1 - 725 at 25 cents each	\$181.25
Articles Checked - 11,885 at 5 cents each	594.25
Admissions	5,776.7
	<hr/> \$6,552.2

ACCESSIONS.

DEPARTMENT OF ANTHROPOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

AYER, E. E., Chicago.

Etruscan jar.

BLACKSTONE, MRS. T. B., Chicago.

Ethnological material — China, India and Tibet (collected by Berthold Laufer).

CHALMERS, WILLIAM J., SMITH, BYRON L., Chicago.

Archaeological material — Illinois.

CUMMINGS, R. F., Philippine Expedition

General ethnological collection — North Central Mindanao (Collected by F. C. Cole).

Ifugao bench — Luzon, Philippine Islands (Collected by Geo. A. Dorsey).

General ethnological collection — Luzon (Collected by William Jones).

General ethnological collection — Luzon (Collected by S. C. Simms).

9 Ifugao skulls — Luzon (Collected by S. C. Simms).

1 Ilongot skull — Luzon (Collected by S. C. Simms).

EGYPTIAN EXPLORATION FUND.

Fragment of small lapis lazuli hawk — Abydos, Egypt.

FIELD, JOSEPH N., Manchester, England. South Pacific Islands' Fund.

General ethnological collection — German New Guinea (Collected by A. B. Lewis).

FIELD MUSEUM OF NATURAL HISTORY.

Collected by Alfred R. Brown:

General ethnological collection — Andaman and Nicobar Islands.

Purchases:

Collection of spears, arrows, knives from Congo and Soudan

Alabaster and pottery mortuary jars, etc. — Northern Africa.

Collection of Algerian jewelry.

Collection of Belgian archaeology.

20 masks of buckskin worn in "Ya vi chy" dance of the Navaho Indians.

Steatite jar — Little Warm Spring Creek, Wyoming.

HAGERTY, T. A., Chicago.

Ancient Egyptian bronze figurine of Goddess Isis.

LATHROP, BARBOUR, Chicago.

Royal sarong — Jokjokerta, Java.

NIGHSWONGER, JAS., Harrisburg, Banner County, Nebraska.

Pottery bowl — Banner County, Nebraska.

MOOREHEAD, WARREN K., Andover, Massachusetts.

Clay material from Jacob's Cavern, Missouri, and Bushey Cavern, Maryland, exchanged.

O'NEILL, Dr. JOHN W., Chicago.

Stone carving of rattlesnake — Mexico.

SARGENT, HOMER E., Chicago.

Collection of ethnological material, Salish Indians — British Columbia.

DEPARTMENT OF BOTANY.

ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

BARNES, CAPT. F. S., Hillsboro, Oregon.

Oregon Yew bough.

BATCHELDER, C. F., Cambridge, Massachusetts.

1 herbarium specimen — Massachusetts.

BLUMER, J. C., Tucson, Arizona.

33 herbarium specimens — Arizona.

BUTLER, GEORGE D., Yreka, California.

11 herbarium specimens — California.

22 herbarium specimens — California.

23 herbarium specimens — California.

CALKINS, W. W., Berwyn, Illinois.

23 herbarium specimens — Illinois.

CHAMBERLAIN, DR. C. J., Chicago.

1 *Macrozamia Fraseri* (micro- and macro-sporophylls) — West Australia.

CONZATTI, CASSIANO, Oaxaca de Juárez, Mexico.

41 herbarium specimens — Mexico.

COULTER, J. M., Chicago.

1 herbarium specimen — California.

1 herbarium specimen — Texas.

1 herbarium specimen — Ohio.

1 herbarium specimen (cultivate) 1 specimen of *Nephrolepis exaltata*

CROSBY, MISS GRACE, Chicago.

2 herbarium specimens — Illinois.

CLUCK, W. C., Union, Oregon.

10 herbarium specimens — Oregon.

DEAM, CHAS. C., Bluffton, Indiana.

1 herbarium specimen — Indiana.

2 herbarium specimens — Indiana.

DEANE, WALTER, Cambridge, Massachusetts.

28 herbarium specimens — United States and Germany.

1 herbarium specimen — New Hampshire.

27 herbarium specimens — Maine, Massachusetts and New Hampshire.

EBERHART, MRS. C. H., Los Angeles, California.

3 herbarium specimens — California.

EPPLESHEIMER, MRS. A. P., Cristobal, Canal Zone.

10 herbarium specimens — Canal Zone.

3 herbarium specimens — Canal Zone.

FIELD MUSEUM OF NATURAL HISTORY.

Collated by J. M. Greenman:

- 1 photograph of *Castilleja Covilleana* Henderson.
- 2 illustrations of plants.
- 88 herbarium specimens — Yucatan and Mexico.

Collated by C. F. Millsbaugh:

- 1 *Polyporus lucidus* (Fungus).
- 47 economic specimens.
- 2 herbarium specimens — Bahamas.

Collected by R. A. Dixon:

- 143 herbarium specimens — Texas.

Collected by H. H. Smith:

- 43 herbarium specimens — Georgia.
- 10 dry fruits — Georgia.
- 1 fruit in formalin — Georgia.
- 403 economic specimens — Georgia.
- 56 economic specimens — Oregon.

Purchases:

- 703 herbarium specimens — California, Idaho, Montana, Nevada, Oregon, Utah and Wyoming.
- 323 herbarium specimens — Arizona.
- 222 herbarium specimens — Tobago and Trinidad.
- 187 herbarium specimens — Oregon.
- 96 herbarium specimens — United States.
- 384 herbarium specimens — Philippine Islands.
- 501 herbarium specimens — United States and Canada.
- 526 herbarium specimens — Mexico.
- 1500 herbarium specimens — Bahamas and Cuba.

Modeled by B. E. Dahlgren:

- 1 sweet potato vine and flowers.
- 13 models of plants — Jamaica and Indiana.
- 5 models of plants — Jamaica and Indiana.
- 4 models of plants — Jamaica and Illinois.
- 3 models of flowers — Jamaica.

Modeled by H. O. Mueller:

- 2 models *Carica Papaya* and *Theobroma Cacao*.

FULLER, GEORGE D., Chicago.

- 17 herbarium specimens — Alberta, Canada.

FURNESS, DWIGHT R.

- 13 herbarium specimens — Mexico.

GEOLOGICAL SURVEY OF CANADA, Ottawa, Ontario, Canada.

- 24 herbarium specimens — Vancouver Island and Yukon.

GRAY HERBARIUM, Cambridge, Massachusetts.

- 1 herbarium specimen — Mexico.

GREENMAN, J. M., Chicago.

- 4 herbarium specimens (Cultivated).
- 1 herbarium specimen — Mexico.

GRUBB, MRS. R. W., Darien, Georgia.

- 1 *Sesamum indicum* "Benny candy" — Georgia.
- 1 *Sesamum indicum* "Benny seed" — Georgia.

- HAMILTON MANUFACTURING COMPANY, Two Rivers, Wisconsin.
7 wood blocks and type.
- HARRISON, A. K., Winchester, Massachusetts.
2 herbarium specimens — Massachusetts.
- HAND, W. J. G., Chicago.
1 *Ginkgo biloba* — fruit — Indiana.
- HANSON, O. E., Jr., Chicago.
128 herbarium specimens — Illinois, Indiana and Michigan.
36 Chinese specimens — Illinois.
- HUNELL, DR. J., Leeds, North Dakota.
1 herbarium specimen — North Dakota.
- MILLSPAUGH, C. F., Chicago.
46 plates from "American Medicinal Plants."
6 plates of North American plants.
1 *Sambucus racemosa* L. — Ephraim, Wisconsin.
- MISSOURI BOTANICAL GARDEN, St. Louis, Missouri.
2 original descriptions of plants (exchange).
- MITCHELL, MISS CLARA J., Chicago.
1 flax handle.
- MOSELEY, E. L., Sandusky, Ohio.
18 herbarium specimens — Ohio, Louisiana and Ontario (exchange).
45 herbarium specimens — Louisiana (exchange).
- NEVADA AGRICULTURAL EXPERIMENT STATION, Reno, Nevada.
10 herbarium specimens — Nevada.
- NEWCOMBE, C. F., Victoria, British Columbia.
2 herbarium specimens — British Columbia.
- NEW YORK BOTANICAL GARDEN, New York, N. Y.
1 herbarium specimen — Great Bahama Island (exchange).
61 herbarium specimens — Jamaica (exchange).
4 herbarium specimens — Cuba (exchange).
2 herbarium specimens — Jamaica (exchange).
5 herbarium specimens — Bahamas (exchange).
262 herbarium specimens — Jamaica and Florida (exchange).
119 herbarium specimens — Cuba and Bahamas (exchange).
581 herbarium specimens — United States, Mexico and West Indies (exchange).
1 herbarium specimen — Crooked Island, Bahamas (exchange).
1 herbarium specimen — Andros, Bahamas (exchange).
- ORCUTT, C. R., San Diego, California.
242 herbarium specimens — Mexico.
202 herbarium specimens — Mexico.
388 herbarium specimens — Mexico.
262 herbarium specimens — Mexico.
180 herbarium specimens — Mexico.
- PEABODY MUSEUM, Salem, Massachusetts.
2502 herbarium specimens.
- PIPER, CHAS. V., Washington, D. C.
1 herbarium specimen — Washington.

- ROSENDAHL, C. O., Minneapolis, Minnesota.
22 herbarium specimens — Alberta, British Columbia and Vancouver Island.
- SHULL, CHARLES A., Lexington, Kentucky.
1 herbarium specimen — Kentucky.
- SMITH, H. H., Chicago.
2 herbarium specimens — Illinois.
- TOWER, W. L., Chicago, Illinois.
19 herbarium specimens — Mexico.
6 herbarium specimens — University of Chicago Greenhouse.
8 herbarium specimens — University of Chicago Greenhouse.
- TOWNE, MRS. H. A., Harvard, Illinois.
107 herbarium specimens — Washington.
- TRELEASE, WM., St. Louis, Missouri.
1 herbarium specimen — Texas.
2 herbarium specimens — Mexico.
- UNITED STATES NATIONAL MUSEUM, Washington, D. C.
21 plates Algae (exchange).
12 plates phanerogams (exchange).
520 herbarium specimens — Idaho, Oregon and Washington (exchange).
364 herbarium specimens — United States, Canada, Europe and Australia (exchange).
- WOLCOTT, A. B., Chicago.
20 herbarium specimens — Illinois.

DEPARTMENT OF GEOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

- BECKER, G. A., Clermont, Iowa.
1 slab of brachiopods and worm tubes — Patterson's Springs, Iowa.
15 specimens invertebrate fossils — Clermont, Iowa (exchange).
- BEERS, CHARLES H., Eustis, Florida.
5 specimens gem smithsonite — San Pedro, Chihuahua, Mexico.
- BLACK, H. M., Salt Lake City, Utah.
1 specimen ozocerite in matrix — Kyune, Utah.
- BÖHM, JULIUS, Vienna, Austria.
1 specimen hambergite — Madagascar (exchange).
- BRITISH MUSEUM, London, England.
2 specimens meteorites — Africa and Australia (exchange).
- CHALMERS, WILLIAM J., AND SMITH, BYRON L., Chicago.
3,500 specimens fossil sponges — Tennessee.
1,500 specimens invertebrate fossils — Bridgeport, Chicago area.
3,000 specimens invertebrate fossils — Mississippi Valley.
- DEPARTMENT OF AGRICULTURE, SYDNEY, N. S. W.
5 pounds Bulli soil — Bulli, New South Wales.
- DOHMEN, U. A., Chicago.
1 map of Colorado.
- DURANT, H. L., Prairie City, Oregon.
1 specimen gold ore — Dixie Gulch, Prairie City, Oregon.

FIELD MUSEUM OF NATURAL HISTORY.

Collected by O. C. Farrington:

- 100 specimens minerals, 10 specimens illustrating the feldspar industry,
- 7 specimens dikes in granite, 3 specimens till, 1 specimen rock,
- 4 specimens fossils — Central Maine.

Collected by E. S. Riggs:

- Upper Eocene vertebrate fossils as follows: 12 specimens *Telmatherium*,
- 11 specimens *Dolichorhinus*, 4 specimens *Palaeosyops*, 3 specimens
- Uintatherium*, 1 specimen *Eobasiliscus*, 1 specimen *Tillotherium*,
- 1 specimen *Mesonyx*, 1 specimen *Amynodon*, 1 specimen crocodont,
- 2 specimens artiodactyls, 3 specimens testudes, 1 specimen crocodile;
- 8 specimens invertebrate fossils, 2 specimens gilsonite, 1 specimen
- celite — Northeastern Utah.

Collected by A. W. Slocom:

- 2,631 specimens invertebrate fossils, 16 specimens geodes and concretions,
- 3 specimens rocks, 14 specimens agates, 1 specimen clay — North-
- eastern Iowa.
- 150 specimens invertebrate fossils — Petoskey and Keweenaw, Michigan.
- 266 specimens invertebrate fossils — Wilmington, Illinois.

Purchases:

- 2 relief maps.
- 1 calcite crystal — Joplin, Missouri.
- 1 skull of *Hyaenodon* — Bad Lands, South Dakota.
- 1 complete meteorite (weight 116 pounds) — Ahumada, Mexico.
- 6 specimens fossil figs — Converse County, Wyoming.
- 2 specimens gold — Mariposa, California.

GOULD, CHAS. N., Norman, Oklahoma.

- 15 specimens sand-barite concretions — Eastern Oklahoma.

GRAVES, F. P., Doe Run, Missouri.

- 1 specimen twin calcite crystal — Joplin, Missouri.

GRIMES, M. W., West Union, Iowa.

- 9 specimens sand-marcasite concretions — Miles City, Montana.
- 2 specimens invertebrate fossils — Hackberry, Iowa.
- 1 specimen fossiliferous limestone — Vernon, Indiana.

GRIGAN, E. JUSTICE, Philadelphia, Pennsylvania.

- 1 etched section and fragment of Shrewsbury meteorite.

JOHNSTON, W. M., Chicago.

- 1 specimen gold ore — Animas Forks, Colorado.

JUDD, I. S., Vicksburg, Arizona.

- 4 specimens copper-silver ore — Yuma County, Arizona.

MILLS, W. M., Pawnee, Oklahoma.

- 22 specimens residual boulders of gypsum, 4 specimens gypsum,
- 3 specimens rocks associated with gypsum — Pawnee, Oklahoma.

MINING WORLD, Chicago, Illinois.

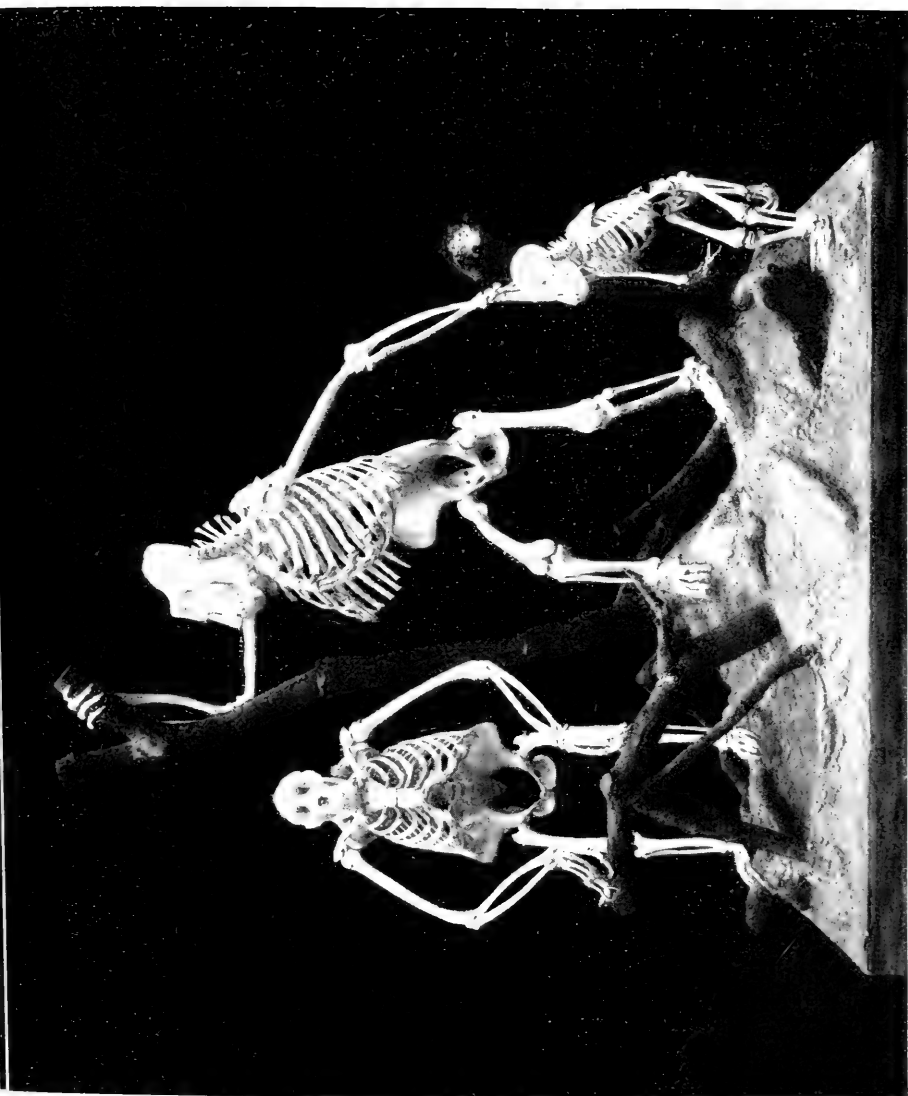
- 1 specimen silver ore — Portland Canal, British Columbia.

MORTON, E., Chicago.

- 1 septarium — St. Louis, Missouri.

NICHOLS, H. W., Chicago.

- 12 specimens claystones, 1 specimen silicified asbestos — Porcupine,
- Ontario.



UNIVERSITY OF URBANA

NORDGREN, P. E., Kenosha, Wisconsin.

15 specimens invertebrate fossils — Pennsylvania (exchange).

REA, THOS. H., Chicago.

10 specimens gold and silver ores — Cobalt and Porcupine, Ontario.

RHONE, HENRY R., Grand Junction, Colorado.

1 specimen elaterite — Fort Duchesne, Utah County, Utah.

SHELBY, H. G., Burlington, Iowa.

12 specimens crinoids — Burlington, Iowa (exchange).

SLOCOM, MARTHA M., Chicago.

634 specimens invertebrate fossils — Bay View, Michigan.

THURSTON, DR. F. A., Chicago.

1 specimen cyanite — Shawanaga, Ontario.

UNIVERSITY OF BRISTOL, Bristol, England.

63 specimens invertebrate fossils — England (exchange).

UTAH COPPER COMPANY, Salt Lake City, Utah.

2 large specimens copper ore, 20 specimens concentrates — Bingham Canyon, Utah.

WELLINGTON, J. L., Chicago.

1 specimen diatomaceous earth — Boise, Idaho.

WESTFIELD MARBLE & SANDSTONE COMPANY, Westfield, Massachusetts.

3 polished slabs of marble — Westfield, Massachusetts.

WILLITS, E. D., Milwaukee, Wisconsin.

2 specimens crystallized calcite — Pewabic Mine, Iron Mountain, Michigan.

ZOELLNER, PAUL, Plainfield, Ohio.

1 limonite concretion — Coshocton County, Ohio.

ZDENEK, PASMA, Farrar, Iowa.

1 specimen jasper — Farrar, Iowa.

DEPARTMENT OF ZOOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

ABBAY, E. S., Chicago.

1 wasp — Chicago, Illinois.

ARMSTRONG, EDWARD E., Chicago, Illinois.

1 American bittern — Lake County, Illinois.

BILLINGS, DR. FRANK, Chicago.

1 large sawfish — Tampico, Mexico.

1 Tarpon skin — Tampico, Mexico.

CARNEGIE MUSEUM, Pittsburgh, Pennsylvania.

530 fishes — British Guiana (exchange).

CRANE, R. T., Chicago.

1 mounted Whooping crane.

COALE, HENRY K., Highland Park, Illinois.

1 mink — Deerfield Lake Co., Illinois.

77 bird skins (exchange).

CORY, C. B., Chicago.

1 hoary bat — Lake Geneva, Wisconsin.

10 FRIEDR. L., Chicago.

2 cockatiels - Chicago, Illinois.

1 catbird - Heaverville, Indiana.

EVANS, WALLACE - Oak Park, Illinois.

1 skeleton of pheasant - Oak Park, Illinois.

1 female Elliot's pheasant.

FIELD, MARSHALL & CO., Chicago.

1 mounted angora goat.

FIELD MUSEUM OF NATURAL HISTORY.

Collected by Julius Friesser:

4 young hawks and nest - Long Lake, Tawas, Michigan.

1 black tern - Long Lake, Tawas, Michigan.

1 salamander - East Tawas, Michigan.

1 snake - East Tawas, Michigan.

Collected by William J. Gerhard:

1030 spiders, centipedes, millipedes, dragonflies, crickets, grasshoppers, bugs, butterflies, moths, beetles, flies, bees, wasps, etc. - Southern Illinois.

183 mosquitoes - Northern Illinois and Northern Indiana.

7 midges - Northern Illinois and Northern Indiana.

553 dragon flies, grasshoppers, bugs, butterflies, moths, flies, beetles, bees, wasps and parasites, etc. - Northern Illinois and Northern Indiana.

Collected by E. L. Moseley:

1 lizard - West Carroll Parish, Louisiana.

3 snakes - West Carroll Parish, Louisiana.

3 salamanders - West Carroll Parish, Louisiana.

11 toads - West Carroll Parish, Louisiana.

1 frog - West Carroll Parish, Louisiana.

Collected by Wilfred H. Osgood:

1 myrtle warbler - Lac Vieux Desert, Wisconsin.

1 Lincoln's finch - Lac Vieux Desert, Wisconsin.

1 house wren - Galena, Illinois.

125 cobbleflies, bugs, butterflies, moths, beetles, flies, bees, wasps, etc. - Northern Illinois and Northern Wisconsin.

108 small mammals - Wisconsin and Illinois.

Collected by L. L. Pray:

1 raccoon skull - Madison Parish, Louisiana.

28 small mammals - Dowagiac, Michigan.

Collected by Henry F. Raven:

98 bird skins - Costa Rica.

108 bird skins - Limon, Costa Rica.

1 monkey - Limon, Costa Rica.

7 squirrels - Limon, Costa Rica.

1 bat - Limon, Costa Rica.

1 alligator - Limon, Costa Rica.

2 peccary skulls - Limon, Costa Rica.

1 mantis - Limon, Costa Rica.

1 beetle - Limon, Costa Rica.

2 beetles — Limon, Costa Rica.

1 caiman — Limon, Costa Rica.

Collected by E. S. Riggs:

1 sand-cricket — Dragon, Utah.

2 beetles — Dragon, Utah.

Collected by E. S. Riggs and J. B. Abbott:

6 snakes — Dragon, Utah.

16 homer toads — Dragon, Utah.

50 lizards — Dragon, Utah.

1 bat — Dragon, Utah.

Collected by A. W. Slocum.

1 beetle — Clermont, Iowa.

1 grasshopper — Clermont, Iowa.

2 bugs — Clermont, Iowa.

2 bees, wasps, etc. — Clermont, Iowa.

2 dragonflies — Brainard, Iowa.

1 beetle — Brainard, Iowa.

3 beetles — West Union, Iowa.

Collected by H. H. Smith:

2 turtles — Darien, Georgia.

Collected by A. B. Wolcott:

1 Carolina rail — Jackson Park, Chicago.

461 nerve-wings, dragonflies, grasshoppers, bugs, beetles, flies, bees, wasps, etc.,— Illinois and Northern Indiana.

Purchases:

2 golden eagles — Bozeman, Montana.

1 California condor.

1 wild turkey — Sussex County, Virginia.

1 great horned owl — Bogota, Illinois.

30 bird skins.

710 bird skins.

231 bird skins — China.

1 Pacific walrus.

11 small mammals — China.

4 opossums — Bogota, Illinois.

2 musk rats — Maine.

33 mammals — State of Washington.

72 South American mammals.

182 mammals — Beaver Dam, Wisconsin.

4 beetles — Darjeeling, India.

30 moths — Darjeeling, India.

210 butterflies — Darjeeling, India.

5 mounted reptiles — Europe.

1 small rodent — Darjeeling, India.

5 gorilla skeletons — West Africa.

8 chimpanzee skeletons — West Africa.

6 mounted gorillas — West Africa.

11 mounted chimpanzees — West Africa.

2 gorilla skulls — West Africa.

- 3 chimpanzee skulls. — West Africa.
 6 skeletons. — Wolf Lake, Illinois.
 1 skeleton of great auk. — Funk Island.
 23 mammals.
 2 bear skins. — Kenai, Alaska.
 2 bear skulls. — Kenai, Alaska.
 17 bird skins. — Mexico.
 12 blue eagle sternum.
 FOSS, S. D., Chicago.
 1 molar tooth of a horse. — Colorado.
 FREEMAN, C., Puerto Viejo, Margarita Island, Venezuela.
 1 deer. — Margarita Island, Venezuela.
 FRIESSER, JULIUS, Chicago.
 1 beetle. — Miller, Indiana.
 1 beetle. — Mikado, Michigan.
 2 beetles. — Liverpool, Indiana.
 1 beetle. — Liverpool, Indiana.
 1 bison skull. — Fort Pierre, South Dakota.
 1 snowy owl skeleton. — Woodruff, Wisconsin.
 1 lady bird. — Liverpool, Indiana.
 1 beetle. — Liverpool, Indiana.
 GILL, DR. G. M., Chicago.
 11 parasites. — Chicago.
 GUERET, E. N., Chicago.
 2 large mouth black bass. — Little Bass Lake, Wisconsin.
 1 bug. — Sayner, Wisconsin.
 1 hornet. — Sayner, Wisconsin.
 5 beetles. — Sayner, Wisconsin.
 1 spider. — Sayner, Wisconsin.
 2 spiders. — Sayner, Wisconsin.
 ISMOND, R. E., Chicago.
 1 brain coral. — Bermuda Islands.
 KWIAT, ALEX., Chicago.
 1 mo quito. — Hessville, Indiana.
 LARKIN, T. J., Chicago.
 2 bugs. — Midway, W. Va.
 5 beetles. — Midway, W. Va.
 McCREA, W. S., Chicago.
 1 jaw of scowfish. — Gulf of Mexico.
 MICHIGAN UNIVERSITY, Ann Arbor, Michigan.
 1 rainbow trout. — Saginaw Bay, Michigan.
 MOSELEY, E. L., Sandusky, Ohio.
 1 white footed mouse. — West Carroll Parish, Louisiana (exchange).
 MUNZNER, H., Chicago.
 37 bugs, grasshoppers, crickets, beetles, flies, bees, wasps, etc. — Northern Illinois, Northern Indiana, California.
 MUSEUM OF COMPARATIVE ZOOLOGY, Cambridge, Massachusetts.
 57 small mammal skins with their skulls (exchange).
 NORDGREN, REV. P. E., Kenosha, Wisconsin.
 9 water shells. — Weekiwa R., Lake County, Florida (exchange).

PLUM, MRS. D. C., Chicago.

1 cockroach (this specimen no doubt was brought with fruit from some port in the West Indies or Tropical America).

PRAY, L. L., Chicago.

2 mice — Chicago.

1 bat — Chicago.

REED, E. D., Chicago.

1 walking-stick — Fort Thomas, Kentucky.

ROMANO, JOE, Chicago, Illinois.

1 moth — Chicago.

1 Tennessee Warbler — Jackson Park, Chicago.

1 olive-backed thrush — Jackson Park, Chicago.

RIGGS, E. S., Chicago.

1 mountain sheep skull — Sheep Mountain, South Dakota.

SELONS, F. C., Worplesdon, Surrey, England.

2 European moles — Worplesdon, Surrey, England.

SLOCOM, A. W., Chicago.

1 pseudoscorpion — Chicago.

THOMAS, OLDFIELD, London, England.

3 pigmy squirrels — Boentoh, Borneo. and London, England.

1 common European mole.

THOMPSON, S. L., Toronto, Canada.

1 fly — Toronto.

1 bumblebee — Toronto.

1 beetle — Toronto.

3 dragonflies — Toronto.

1 nervewing — Toronto.

1 dragonfly — Toronto.

1 parasite — Toronto.

TOMS, MRS. D. B., Chicago.

1 humming bird — Chicago.

WALLACE, W. L., Chicago.

1 snake — Durango, Mexico.

WILLARD, O. T., Chicago.

1 evening grosbeck — Jackson Park, Chicago.

WILLARD, F. C., Tombstone, Arizona.

25 moths — Tombstone, Arizona.

SECTION OF PHOTOGRAPHY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

FIELD MUSEUM OF NATURAL HISTORY.

Made by C. H. Carpenter:

921 negatives Museum specimens, etc., 4,735 prints,

398 lantern slides, 15 enlargements, 287 negatives developed for field expeditions, 21 photomacrophs of skulls, seeds, etc.

Made by C. A. Corwin:

7 photographs of landscapes.

12 photographs of landscapes — Montana.

- Made by O. C. Farrington:
6 photographs of landscapes. — Maine.
Purchased:
104 photographs, views, etc., made in India.
103 portraits of natives, street scenes, etc. — India.
8 lantern slides. — The Colorado River.
9 lantern slides. — The Colorado River.
4 hand-colored lantern slides. — The Colorado River.
Made by S. E. Meek:
30 photographs of landscapes.
Made by W. H. Oggsch:
12 photographs of landscapes. — Michigan.
Made by E. S. Ruggs:
102 photographs of landscapes. — Utah.
Made by S. C. Summs:
241 photographs of natives. — Philippine Islands.
Made by A. W. Slocum:
12 photographs of landscapes.
Made by H. H. Smith:
96 photographs of trees. — Georgia.
SEEMEYER, DR. VILABID, Budapest, Hungary.
104 photographs illustrating the physical types and house life of the
different nationalities of Hungary (exchange).

THE LIBRARY.

BOOKS, PAMPHLETS, AND SERIALS.

ACCESSIONS ARE BY EXCHANGE UNLESS OTHERWISE DESIGNATED.)

- ACIREALE ACCADEMIA DI SCIENZE, Acireale, Italy.
Rendiconti e memorie. Atti, ser. 3a, v. 6.
ALABAMA AGRICULTURAL EXPERIMENT STATION, Auburn, Alabama.
Annual report, 1908, 1909, 1910.
Bulletin, current numbers (gift).
ALABAMA ANTHROPOLOGICAL SOCIETY, Montgomery, Alabama.
Handbook, 1910 (gift).
ALASKA AGRICULTURAL EXPERIMENT STATION, Washington, D. C.
Annual report, 1909.
Bulletin, current numbers.
ALEXANDRIE SOCIÉTÉ D'HISTOIRE NATURELLE, Alexandria, Egypt.
Mémoires et communications, ser. 1 no. 1-3.
ALTONAER MUSEUM, Altona, Germany.
Jahresbericht, 1909.
AMERICAN ACADEMY OF ARTS AND SCIENCES, Cambridge, Massa-
chusetts.
Proceedings, current numbers.
AMERICAN ANTIQUARIAN SOCIETY, Boston, Massachusetts.
Proceedings, v. 20.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE,
Washington, D. C.

Proceedings, v. 59-61.

AMERICAN ASSOCIATION OF MUSEUMS.

Proceedings, v. 3.

AMERICAN CHEMICAL JOURNAL PUBLISHING COMPANY, Baltimore,
Maryland.

Journal, current numbers.

AMERICAN FOLK-LORE SOCIETY, Cambridge, Massachusetts.

Journal, current numbers.

AMERICAN GEOGRAPHICAL SOCIETY, New York City.

Bulletin, current numbers.

AMERICAN INSTITUTE OF MINING ENGINEERS, New York City.

Yearbook, 1910.

AMERICAN MINING CONGRESS, Denver, Colorado.

Report, 1909.

AMERICAN MUSEUM OF NATURAL HISTORY, New York City.

29 publications.

AMERICAN ORIENTAL SOCIETY, New Haven, Connecticut.

Journal, v. 30.

AMERICAN PHILOSOPHICAL SOCIETY, Philadelphia.

Proceedings, current numbers.

AMSTERDAM. K. AKADEMIE VAN WETENSCHAPPEN, Amsterdam,
Netherlands.

8 publications.

ANGERS. SOCIÉTÉ D'ÉTUDES SCIENTIFIQUES, Angers, France.

Bulletin, v. 38.

ANNALES DES MINES, Paris, France.

Annales, current numbers.

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND
IRELAND, London, England.

Journal, current numbers.

ARCHAEOLOGICAL INSTITUTE OF AMERICA, Santa Fe, New Mexico.

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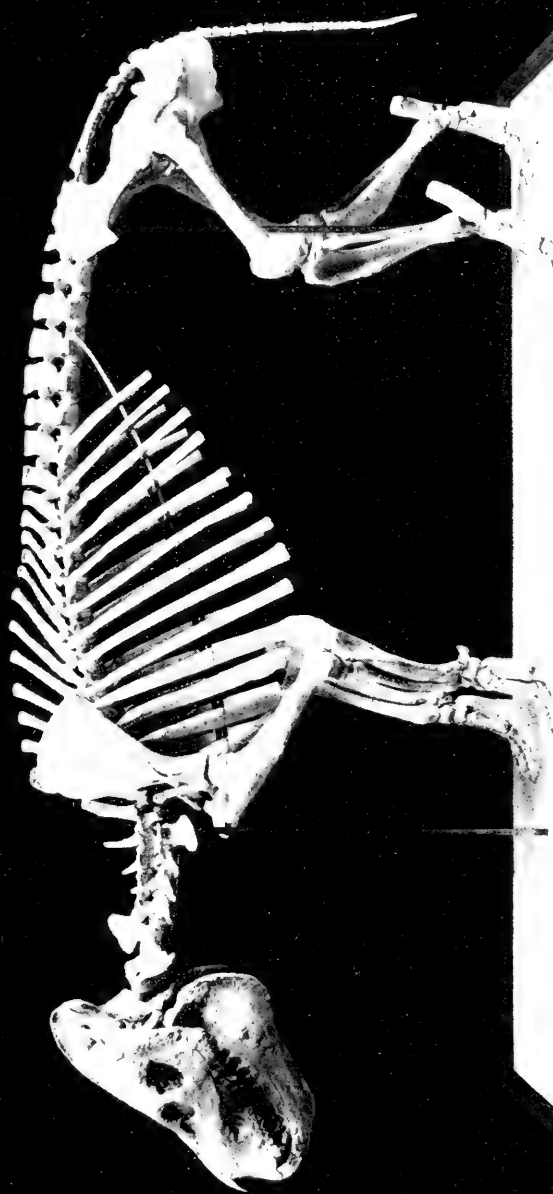
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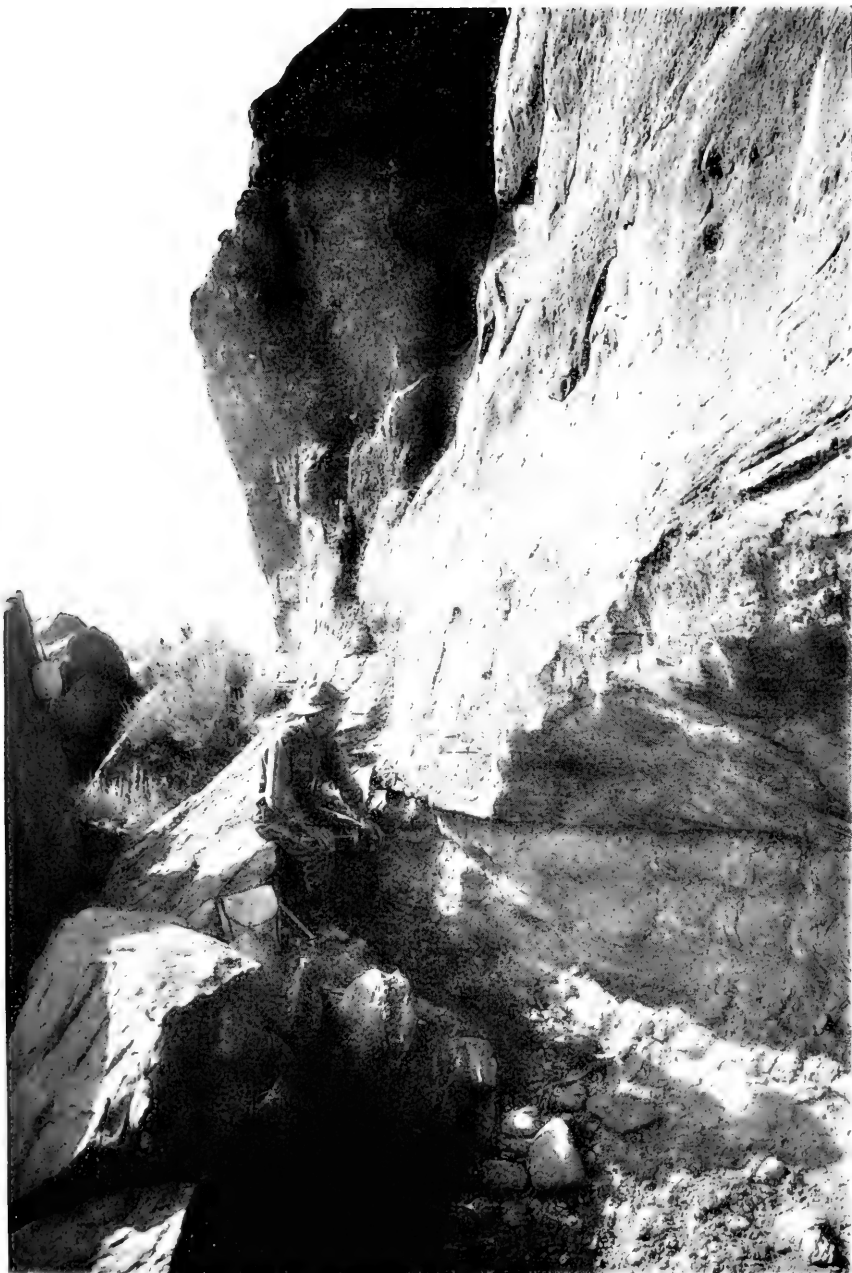
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7 publications.



EXCAVATING SKULL OF TELMATHERIUM.

Uintah sandstone, Utah. (From photograph). Expedition of 1910.

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14 publications.
- MAGYAR NEMZETI MUSEUM, Budapest, Hungary.
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- MAIDEN, J. H., Sydney, New South Wales.
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KUNDE, Batavia, Java.
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Catalogue, 1909-10.

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- OKLAHOMA ACADEMY OF SCIENCE, Oklahoma City, Oklahoma.
 1 pamphlet.
- OKLAHOMA AGRICULTURAL EXPERIMENT STATION, Stillwater,
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4 publications.

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4 pamphlets.

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3 publications.

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PORTO RICO AGRICULTURAL EXPERIMENT STATION, Mayaguez, Porto Rico.

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Zeitschrift der Naturw. Abtheilung, current numbers.

PRATT INSTITUTE FREE LIBRARY, Brooklyn, New York.

6 publications.

PREUSS, K. TH., Berlin, Germany.

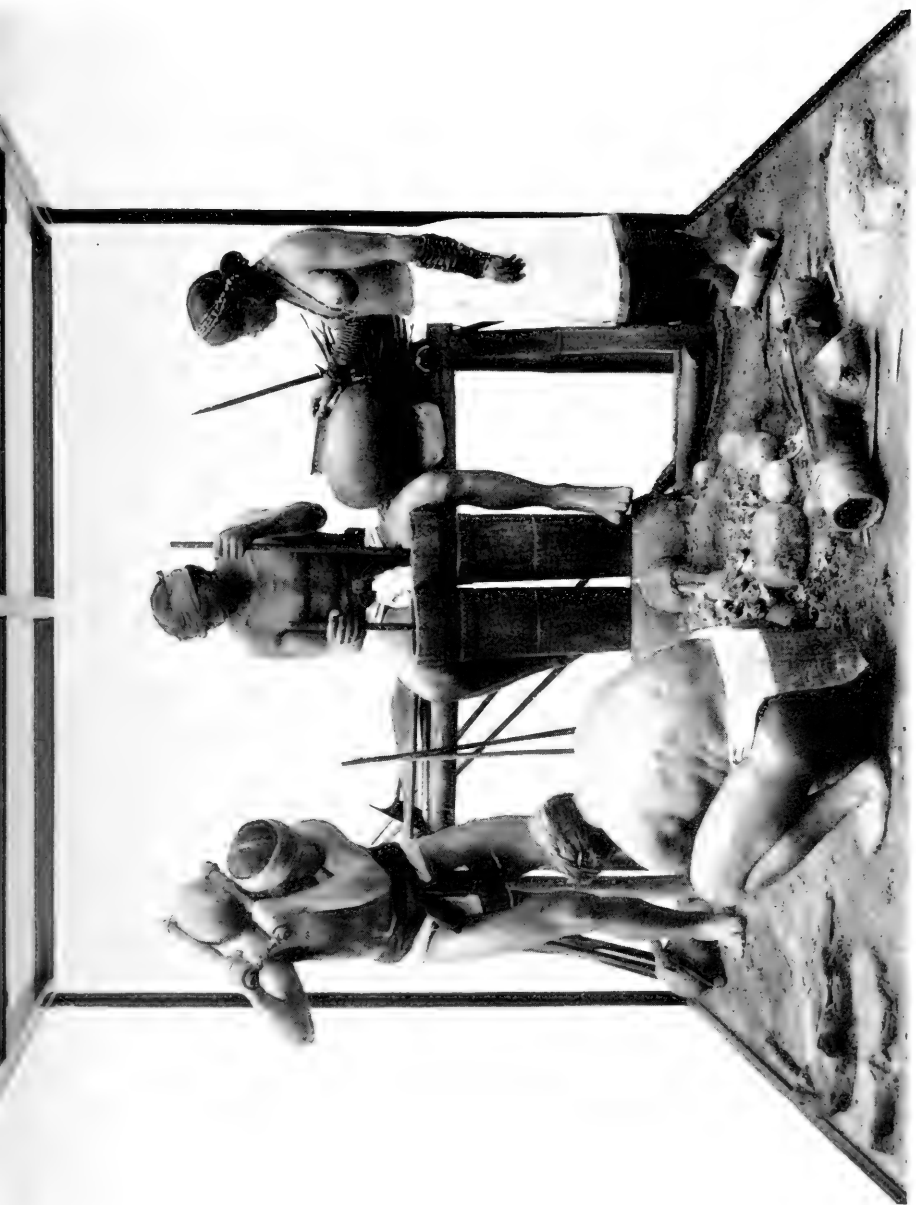
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6 publications.
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5 guides and map.
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Agricultural Experiment Station:
13 publications.
- PUTNAM, FREDERIC WARD, Cambridge, Massachusetts.
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Bulletin, current numbers.
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Proceedings, v. 22, pt. 1.
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Annual report, no. 8, 1909.
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Proceedings, v. 1-8, 1900-1908.
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- ROGER WILLIAMS PARK MUSEUM, Providence, Rhode Island.
2 publications.
- ROME. R. ACCADEMIA DEI LINCEI, Rome, Italy.
Atti, current numbers.
Rendiconte, current numbers.
- ROSE POLYTECHNIC INSTITUTE, Terre Haute, Indiana.
Catalogue, 1909-10.
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- ROYAL ARCHAEOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND, London, England.
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- ROYAL ASIATIC SOCIETY, CEYLON BRANCH, Colombo, India.
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14 publications.
- ROYAL ZOOLOGICAL SOCIETY OF IRELAND, Dublin, Ireland.
Annual report, 1909.
- RUTOT, A., Paris, France.
3 reprints.
- RYERSON, MARTIN A., Chicago.
7 publications (gifts).
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- ST. LOUIS ACADEMY OF SCIENCES, St. Louis, Missouri.
Transactions, current numbers.
- ST. LOUIS CITY ART MUSEUM, St. Louis, Missouri.
10 catalogues.
- ST. LOUIS PUBLIC LIBRARY, St. Louis, Missouri.
10 publications.
- ST. LOUIS UNIVERSITY, St. Louis, Missouri.
4 publications.
- ST. PAUL PUBLIC LIBRARY, St. Paul, Minnesota.
Annual report, no. 26, 27, 28.
- ST. PETERSBURG, ACADEMIE IMPÉRIALE DES SCIENCES, St. Peters-
burg, Russia.
41 publications.
- ST. PETERSBURG, SOCIÉTÉ IMPÉRIALE DES NATURALISTES, St.
Peterburg, Russia.
10 publications.
- SALEM PUBLIC LIBRARY, Salem, Massachusetts.
10 publications.
- SAN SALVADOR MUSEO NACIONAL, San Salvador.
Anales, current numbers.
- SANTIAGO DE CHILE, BIBLIOTECA NACIONAL, Santiago, Chile.
134 publications.
- SÃO PAULO, INSTITUTO AGRONÓMICO, São Paulo, Brazil.
Boletim, current numbers.
- SÃO PAULO, SOCIEDADE CIENTÍFICA, São Paulo, Brazil.
Revista, current numbers.
- SAÔNE ET LOIRE, SOCIÉTÉ DES SCIENCES NATURELLES, Châlon-
sur-Saône, France.
Bulletin, current numbers.
- SAPIR, EDWARD, Philadelphia, Pennsylvania.
1 publication.
- SARASIN, PAUL, Basel, Switzerland.
1 pamphlet.
- SARAWAK MUSEUM, Borneo, India.
Report, 1909-0.
- SARGENT, C. S., Philadelphia.
3 pamphlets.



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UNIVERSITY OF ILLINOIS
URBANA

SATURDAY REVIEW, London, England.

Current numbers.

SAVILLE, MARSHALL H., AND HEYE, GEORGE G., New York City.

Contributions to South American archeology, v. 1-2 (gift).

SCHLAGINHAUFEN, OTTO, Dresden, Germany.

3 pamphlets.

SCHWARZ, ERNST, Berlin, Germany.

5 reprints.

SCHWEIZERISCHE ENTOMOLOGISCHE GESELLSCHAFT, Bern, Switzerland.

Mitteilungen, v. 11.

SCHWEIZERISCHE NATURFORSCHENDE GESELLSCHAFT, Lausanne, Switzerland.

Verhandlungen, 92nd jahr, v. 1-2.

SCOTLAND FISHERIES BOARD, Glasgow, Scotland.

2 reports.

SELER, EDUARD, Berlin, Germany.

7 pamphlets.

SENCKENBERGISCHE NATURFORSCHENDE GESELLSCHAFT, Frankfurt-am-Main, Germany.

Bericht, 1910.

SIMPSON, JAMES J., Aberdeen, Scotland.

1 publication.

SKIFF, F. J. V., Chicago.

3 publications.

SLOCOM, A. W., Chicago.

B. & C. mining exchange, current numbers.

SLONAKER, JAMES ROLLIN, Palo Alto, California.

1 pamphlet.

SMITH, JOHN B., New Brunswick, New Jersey.

3 publications.

SMITH, J. D., Baltimore, Maryland.

1 pamphlet.

SOCIEDAD CIENTIFICA "ANTONIO ALZATE," Mexico, Mexico.

Memorias, current numbers.

SOCIEDAD RURAL ARGENTINA, Buenos Aires, Argentina.

1 pamphlet (gift).

SOCIETÀ AFRICANA D'ITALIA, Naples, Italy.

Bollettino, v. 29.

SOCIETÀ BOTANICA ITALIANA, Firenze, Italy.

Webbia, v. 1-2.

SOCIETÀ GEOGRAFICA ITALIANA, Rome, Italy.

Bollettino, current numbers.

SOCIETÀ GEOLOGICA ITALIANA, Rome, Italy.

Bollettino, v. 29, pt. 1.

SOCIETÀ ITALIANA DI ANTROPOLOGIA, Florence, Italy.

Archivio, current numbers.

SOCIETÀ ROMANA DI ANTROPOLOGIA, Rome, Italy.

Atti, current numbers.

SOCIETÀ TOSCANA DI SCIENZE NATURALI, Pisa, Italy.

Memorie, v. 25.

SOCIÉTÉ BELGE DE GÉOLOGIE, DE PALÉONTOLOGIE ET D'HYDRO-
LOGIE, Brussels, Belgium.

Bulletin, current numbers.

SOCIÉTÉ BOTANIQUE DE COPENHAGEN, Copenhagen, Denmark.

Botanisk tidsskrift, current numbers.

SOCIÉTÉ BOTANIQUE DE FRANCE, Paris, France.

Bulletin, current numbers.

SOCIÉTÉ D'ÉTUDE DES SCIENCES NATURELLES, Béziers, France.

Bulletin, v. 30.

SOCIÉTÉ D'ÉTUDE DES SCIENCES NATURELLES, Rheims, France.

Bulletin, current numbers.

SOCIÉTÉ D'HORTICULTURE ET DE BOTANIQUE, Marseille, France.

Revue horticole, current numbers.

SOCIÉTÉ DE GÉOGRAPHIE, Toulouse, France.

Bulletin, current numbers.

SOCIÉTÉ DE PHYSIQUE ET D'HISTOIRE NATURELLE, Geneva,
Switzerland.

Mémoires, current numbers.

SOCIÉTÉ DES AMIS DE L'UNIVERSITÉ, Clermont, France.

Revue d'Auvergne et bulletin de l'Université, current numbers.

SOCIÉTÉ DES SCIENCES, Nancy, France.

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SOCIÉTÉ GÉOLOGIQUE DU NORD, Lille, France.

Annales, v. 37, 1908.

SOCIÉTÉ IMPÉRIALE RUSSE DE GÉOGRAPHIE, St. Petersburg, Russia.

Publications, current numbers.

SOCIÉTÉ NATIONALE D'HORTICULTURE DE FRANCE, Paris, France.

Journal, v. 11.

SOCIÉTÉ NEUCHÂTELOISE DE GÉOGRAPHIE, Neuchâtel, Switzerland.

Bulletin, current numbers.

SOCIÉTÉ OURALIENNE D'AMATEURS DES SCIENCES NATURELLES.

Ekaterinburg, Russia.

Bulletin, v. 28-29.

SOCIÉTÉ PORTUGAISE DE SCIENCES NATURELLES, Lisbon, Portugal.

Bulletin, v. 3-4.

SOCIÉTÉ ZOOLOGIQUE DE FRANCE, Paris, France.

Bulletin, v. 34.

Mémoires, v. 21.

SOMMERFELD, ALFRED, Breslau, Germany.

1, separate.

SOUTH AFRICA GEOLOGICAL SOCIETY, Johannesburg, South Africa.

Transactions, current numbers.

SOUTH AFRICAN ASSOCIATION FOR THE ADVANCEMENT OF SCI-
ENCE, Cape Town, South Africa.

Journal of science, current numbers.

SOUTH AFRICAN CENTRAL LOCUST BUREAU, Pretoria, South Africa.

Reports, no. 1-2, 4.

- SOUTH AFRICAN MUSEUM, Cape Town, South Africa.
Report, 1909.
- SOUTH AFRICAN PHILOSOPHICAL SOCIETY, Cape Town, South Africa.
Transactions, current numbers.
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South Australia.
Journal, current numbers.
- SOUTH AUSTRALIA GOVERNMENT GEOLOGIST, Adelaide, South Aus-
tralia.
Report, 1909.
- SOUTH AUSTRALIA PUBLIC LIBRARY, MUSEUM AND ART GALLERY,
Adelaide, South Australia.
Report, 1908-9.
- SOUTH AUSTRALIA ROYAL SOCIETY, Adelaide, South Australia.
Memoirs, v. 2, pt. 2.
Transactions and proceedings, v. 33.
- SOUTH CAROLINA AGRICULTURAL EXPERIMENT STATION, Clemson,
South Carolina.
7 publications.
- SOUTH DAKOTA SCHOOL OF MINES, Rapid City, South Dakota.
Bulletin, no. 9.
- SOUTH LONDON ENTOMOLOGICAL AND NATURAL HISTORY SO-
CIETY, London, England.
Proceedings, 1909-10.
- SOUTHERN CALIFORNIA ACADEMY OF SCIENCES, Los Angeles,
California.
Bulletin, current numbers.
- SOUTHERN PACIFIC RAILROAD, San Francisco, California.
Sunset, current numbers (gift).
- SPENCER, L. J., London, England.
2 reprints (gift).
- SPEZIA, GIORGIO, Torino, Italy.
2 pamphlets (gift).
- SPRINGFIELD MUSEUM OF NATURAL HISTORY, Springfield, Massa-
chusetts.
14 publications.
- STATEN ISLAND ASSOCIATION OF ARTS AND SCIENCES, New York
City.
Bulletin, current numbers.
- STEVENS INSTITUTE OF TECHNOLOGY, Hoboken, New Jersey.
Catalogue, 1910-11.
- STOCKHOLM. K. SVEN. VETENSKAPS AKADEMIEN, Stockholm,
Sweden.
15 publications.
- STOCKHOLM. K. VITT. HIST. OCH ANTIQ. AKADEMIEN, Stockholm,
Sweden.
Fornvännen, 1909.
- STOCKHOLM. SVEN. SÄLLSK. FÖR ANTROPOLOGI OCH GEOGRAFI,
Stockholm, Sweden.
Ymer, current numbers.

- STRASSBURG KAISERLICHE UNIVERSITÄT, Strassburg, Germany.
12 publications.
- SWEDEN FORSLICHE VERSUCHSANSTALT, Stockholm, Sweden.
Mittdelungen, v. 6, 1909.
- TASMANIA DEPARTMENT OF AGRICULTURE, Hobart, Tasmania.
6 publications.
- TASMANIA ROYAL SOCIETY, Hobart, Tasmania.
Paper and proceedings, 1909.
- TEXAS AGRICULTURAL EXPERIMENT STATION, College Station, Texas.
8 publications.
- TEXAS UNIVERSITY, Austin, Texas.
Bulletin, science series, current numbers.
- THROOP INSTITUTE, Pasadena, California.
Catalogue, 1910.
- THURINGISCHER BOTANISCHE VEREIN, Weimar, Germany.
Mittdelungen, v. 26, 27.
- THURSTON, E., Madras, India.
Castes and tribes of southern India, 7 volumes (gift).
- TOKYO ANTHROPOLOGICAL SOCIETY, Tokyo, Japan.
Journal, v. 25, no. 280-291.
- TOKYO BOTANICAL SOCIETY, Tokyo, Japan.
Magazine, current numbers.
- TOKYO GEOLOGICAL SURVEY, Tokyo, Japan.
Bulletin, current numbers.
- TOKYO IMPERIAL UNIVERSITY, Tokyo, Japan.
11 publications.
- TOLEDO PUBLIC LIBRARY, Toledo, Ohio.
Report, no. 35, 1909.
- TORINO MUSEO DI ZOOLOGIA ED ANATOMIA COMPARATA, Turin, Italy.
Bollettino, v. 24.
- TORINO R. ACCAD. DELLE SCIENZE, Turin, Italy.
Atti, current numbers.
Memorie, current numbers.
- TORONTO UNIVERSITY, Toronto, Canada.
Studies, current numbers.
- TOWNSEND, CHARLES HASKINS.
1 pamphlet.
- TRANSVAAL DEPARTMENT OF AGRICULTURE, Pretoria, Transvaal.
Journal, current numbers.
- TRANSVAAL MUSEUM, Pretoria, Transvaal.
Annals, v. 2, no. 1.
- TRELEASE, WILLIAM, St. Louis, Missouri.
1 reprint.
- TRING ZOOLOGICAL MUSEUM, Tring, England.
Newitates zoologicae, current numbers.
- TRINITY COLLEGE, Dublin, Ireland.
Hermathena, no. 36.

TROMSO MUSEUM, Tromso, Norway.

Aarsberetning, 1908.

Aarshefter, 1907.

TROPICAL AGRICULTURAL PUBLISHING COMPANY, Mexico City, Mexico.

American review of tropical agriculture, v. 1.

TÜBINGEN KÖNIG. UNIVERSITÄTS BIBLIOTHEK, Tübingen, Germany.

7 dissertations.

TUFTS COLLEGE, Tufts, Massachusetts.

Studies, v. 3, no. 1.

UNION COLLEGE, Schenectady, New York.

Catalogue, 1910-11.

U. S. GOVERNMENT, Washington, D. C.

618 publications.

U. S. INDIAN SCHOOL, Carlisle, Pennsylvania.

Red man, the, current numbers.

UPSALA SOCIETAS SCIENTIARUM, Upsala, Sweden.

Nova Acta, ser. 3, v. 1-20; ser. 4, v. 2, no. 7-9.

UPSALA UNIVERSITY, Upsala, Sweden.

5 publications.

UTAH AGRICULTURAL EXPERIMENT STATION, Logan, Utah.

3 publications.

UTAH STATE HORTICULTURAL COMMISSION, Salt Lake City, Utah.

Bulletin, no. 1.

VENEZUELA ESTADISTICA DE LOS ESTADOS UNIDOS, Caracas,

Venezuela.

2 publications.

VERMONT UNIVERSITY, Burlington, Vermont.

Bulletin, current numbers.

Catalogue, 1909-1910.

VICTORIA DEPARTMENT OF AGRICULTURE, Melbourne, Australia.

Journal, current numbers.

VICTORIA FIELD NATURALISTS' CLUB, Melbourne, Australia.

Victorian naturalist, current numbers.

VICTORIA MUSEUM, Launceston, Tasmania.

Memoirs, no. 1.

VICTORIA PUBLIC LIBRARY, MUSEUMS AND NATIONAL GALLERY,

Victoria, Australia.

Report, 1909.

VICTORIA. ROYAL SOCIETY, Melbourne, Australia.

Proceedings, v. 22.

VIRCHOW, H., Berlin, Germany.

14 pamphlets.

VIRGINIA AGRICULTURAL EXPERIMENT STATION, Blacksburg, Virginia.

Bulletin, current numbers.

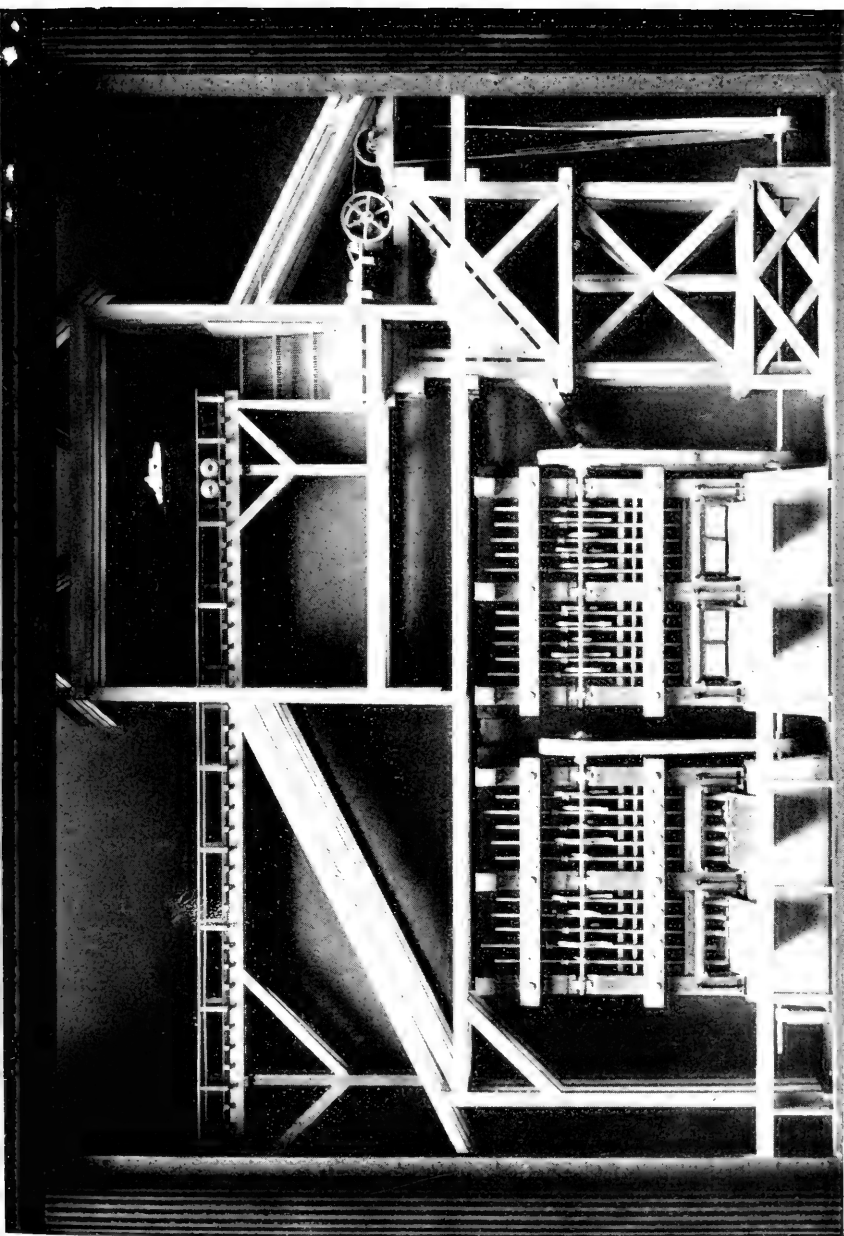
VIRGINIA STATE LIBRARY, Richmond, Virginia.

Bulletin, v. 3.

VIRGINIA UNIVERSITY, Charlottesville, Virginia.

Catalogue, 1909-10.

- WASHINGTON ACADEMY OF SCIENCES, Washington, D. C.
Proceedings, current numbers.
- WASHINGTON BIOLOGICAL SOCIETY, Washington, D. C.
Proceedings, current numbers.
- WASHINGTON PHILOSOPHICAL SOCIETY, Washington, D. C.
Proceedings, current numbers.
- WASHINGTON STATE LIBRARY, Olympia, Washington.
1 publication.
- WASHINGTON UNIVERSITY, Seattle, Washington.
State Museum series, Bulletin, no. 1.
- WAUGAUNI PUBLIC MUSEUM, Waugauri, New Zealand.
Annual report, no. 15.
- WELLCOME CHEMICAL RESEARCH LABORATORIES, London, England.
19 publications.
- WELLINGTON ACCLIMATISATION SOCIETY, Wellington, New Zealand.
Annual report, no. 25.
- WELLINGTON FIELD NATURALISTS' CLUB, Guelph, Canada.
Bulletin, no. 6.
- WESLEYAN UNIVERSITY, Middletown, Connecticut.
2 publications.
- WEST INDIES. IMPERIAL DEPARTMENT OF AGRICULTURE, Barbadoes, West Indies.
18 publications.
- WEST VIRGINIA AGRICULTURAL EXPERIMENT STATION, Morgantown, West Virginia.
4 publications.
- WEST VIRGINIA STATE BOARD OF AGRICULTURE, Charleston, West Virginia.
3 publications.
- WESTERN AUSTRALIA DEPARTMENT OF AGRICULTURE, Perth, West Australia.
Journal, current numbers.
- WESTERN AUSTRALIA GEOLOGICAL SURVEY, Perth, West Australia.
4 publications.
- WESTERN AUSTRALIAN MUSEUM AND ART GALLERY, Perth, West Australia.
Records, v. 1, no. 1.
- WESTERN PENNSYLVANIA ENGINEERS SOCIETY, Pittsburgh, Pa.
Magazine, current numbers.
- WHITE, I. C., Morgantown, West Virginia.
2 publications.
- WIDENER, P. A. B., Philadelphia, Pennsylvania.
1 publication (gift).
- WIEN, K. K. NATURHISTORISCHES HofMUSEUM, Vienna, Austria.
Annalen, current numbers.
- WIEN, K. K. UNIVERSITÄT, Vienna, Austria.
7 publications.
- WIEN, K. K. ZOOLOGISCH-BOTANISCHE GESELLSCHAFT, Vienna, Austria.
Verhandlungen, v. 59.



MODEL OF TWENTY STAMP GOLD MILL.

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- WIEN. NATURWISSENSCHAFTLICHER VEREIN, Vienna, Austria.
Mitteilungen, v. 7.
- WIESBADEN. NASSAUISCHER VEREIN FÜR NATURKUNDE, Wiesbaden, Germany.
Jahrbuch, v. 62.
- WILLE, N., Christiania, Norway.
Naturvidenskaberne magazine, current numbers.
- WILLIAMS COLLEGE, Williamstown, Massachusetts.
Catalogue, 1909-11.
- WILLISTON, S. W., Chicago.
1 reprint.
- WILSON ORNITHOLOGICAL CLUB, Oberlin, Ohio.
Bulletin, current numbers.
- WINDSOR KENFIELD PUBLISHING COMPANY, Chicago.
Brick, current numbers.
- WISCONSIN ARCHAEOLOGICAL SOCIETY, Madison, Wisconsin.
Bulletin, current numbers.
- WISCONSIN STATE HISTORICAL SOCIETY, Madison, Wisconsin.
3 publications.
- WISCONSIN STATE HORTICULTURAL SOCIETY, Madison, Wisconsin.
7 publications.
- WISCONSIN UNIVERSITY, Madison, Wisconsin.
38 publications.
- WISTAR INSTITUTE OF ANATOMY AND BIOLOGY, Philadelphia, Pennsylvania.
18 publications.
- WOOD, J. MEDLEY, Natal, Africa.
1 pamphlet.
- WOOD, NORMAN A., London, England.
1 pamphlet.
- WOODWARD, ARTHUR SMITH, London, England.
29 pamphlets.
- WOOTON, ELMER OTTIS, Mesilla Park, New Mexico.
4 pamphlets.
- WORCESTER FREE PUBLIC LIBRARY, Worcester, Massachusetts.
9 publications.
- WÜRTEMBERG VEREIN FÜR VATERLÄNDISCHE NATURKUNDE, Würtemberg, Germany.
Jahreshefte, v. 66.
- WYOMING AGRICULTURAL EXPERIMENT STATION, Laramie, Wyoming.
3 publications.
- YALE UNIVERSITY, New Haven, Connecticut.
21 publications.
- ZÜRICH. BOTANISCHES MUSEUM DER UNIVERSITÄT, Zürich, Switzerland.
Mitteilungen, no. 47-51.
- ZÜRICH. NATURFORSCHENDE GESELLSCHAFT, Zürich, Switzerland.
Vierteljahrsschrift, current numbers.

ARTICLES OF INCORPORATION.

STATE OF ILLINOIS.

DEPARTMENT OF STATE.

WILLIAM H. HINRICHSSEN, *Secretary of State.*

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETING:

Whereas, a Certificate duly signed and acknowledged having been filed in the office of the Secretary of State, on the 16th day of September, A. D. 1893, for the organization of the COLUMBIAN MUSEUM OF CHICAGO, under and in accordance with the provisions of "An Act Concerning Corporations," approved April 18, 1872, and in force July 1, 1872, and all acts amendatory thereof, a copy of which certificate is hereto attached,

Now, therefore, I, William H. Hinrichsen, Secretary of State of the State of Illinois, by virtue of the powers and duties vested in me by law, do hereby certify that the said COLUMBIAN MUSEUM OF CHICAGO is a legally organized Corporation under the laws of this State.

In Testimony Whereof, I hereto set my hand and cause to be affixed the Great Seal of the State. Done at the City of Springfield, this 16th day of September, in the year of our Lord one thousand eight hundred and ninety-three, and of the Independence of the United States the one hundred and eighteenth.

W. H. HINRICHSSEN,
Secretary of State.

S&C

TO HON. WILLIAM H. HINRICHSSEN,

SECRETARY OF STATE:

SIR:

We, the undersigned, citizens of the United States, propose to form a corporation under an act of the General Assembly of the State of Illinois, entitled "An Act Concerning Corporations," approved April 18, 1872, and all acts amendatory thereof, and that for the purposes of such organization we hereby state as follows, to-wit:

1. The name of such corporation is the "COLUMBIAN MUSEUM OF CHICAGO."

2. The object for which it is formed is for the accumulation and dissemination of knowledge, and the preservation and exhibition of objects illustrating Art, Archaeology, Science, and History.

3. The management of the aforesaid Museum shall be vested in a Board of FIFTEEN (15) TRUSTEES, five of whom are to be elected every year.

4. The following named persons are hereby selected as the Trustees for the first year of its corporate existence:

Ed. E. Ayer, Charles B. Farwell, George E. Adams, George R. Davis, Charles L. Hutchinson, Daniel H. Burnham, John A. Roche, M. C. Bullock, Emil G. Hirsch, James W. Ellsworth, Allison V. Armour, O. F. Aldis, Edwin Walker, John C. Black, and Frank W. Gunsaulus.

5. The location of the Museum is in the City of Chicago, County of Cook, and State of Illinois.

(Signed),

George E. Adams, C. B. Farwell, Sidney C. Eastman, F. W. Putnam, Robert McMurdy, Andrew Peterson, L. J. Gage, Charles L. Hutchinson, Ebenezer Buckingham, Andrew McNally, Edward E. Ayer, John M. Clark, Herman H. Kohlsaatt, George Schneider, Henry H. Getty, William R. Harper, Franklin H. Head, E. G. Keith, J. Irving Pearce, Azel F. Hatch, Henry Wade Rogers, Thomas B. Bryan, L. Z. Leiter, A. C. Bartlett, A. A. Sprague, A. C. McClurg, James W. Scott, George F. Bissell, John R. Walsh, Chas. Fitzsimons, John A. Roche, E. B. McCagg, Owen F. Aldis, Ferdinand W. Peck, James H. Dole, Joseph Stockton, Edward B. Butler, John McConnell, R. A. Waller, H. C. Chatfield-Taylor, A. Crawford, Wm. Sooy Smith, P. S. Peterson, John C. Black, Jno. J. Mitchell, C. F. Gunther, George R. Davis, Stephen A. Forbes, Robert W. Patterson, Jr., M. C. Bullock, Edwin Walker, George M. Pullman, William E. Curtis, James W. Ellsworth, William E. Hale, Wm. T. Baker, Martin A. Ryerson, Huntington W. Jackson, N. B. Ream, Norman Williams, Melville E. Stone, Bryan Lathrop, Eliphalet W. Blatchford, Philip D. Armour.

STATE OF ILLINOIS }
COOK COUNTY } ss.

I, G. R. MITCHELL, a NOTARY PUBLIC in and for said County, do hereby certify that the foregoing petitioners personally appeared before me and acknowledged severally that they signed the foregoing petition as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this 14th day of September, 1893.

G. R. MITCHELL,

[SEAL]

NOTARY PUBLIC, COOK COUNTY, ILL.

CHANGE OF NAME.

Pursuant to a resolution passed at a meeting of the Corporate members held the 25th day of June, 1894, the name of the COLUMBIAN MUSEUM was changed to FIELD COLUMBIAN MUSEUM. A certificate to this effect was filed June 26 1894, in the office of the Secretary of State for Illinois.

CHANGE OF NAME.

Pursuant to a resolution passed at a meeting of the Corporate members held the 8th day of November, 1905, the name of the FIELD COLUMBIAN MUSEUM was changed to FIELD MUSEUM OF NATURAL HISTORY. A certificate to this effect was filed November 10, 1905, in the office of the Secretary of State for Illinois.

AMENDED BY-LAWS.

(JULY 11, 1910.)

ARTICLE I.

MEMBERS.

SECTION 1. Members shall be of five classes, Annual Members, Corporate Members, Life Members, Patrons and Honorary Members.

SEC. 2. Annual Members shall consist of such persons as are selected from time to time by the Board of Trustees at any of its meetings, and who shall pay an annual fee of ten dollars (\$10.00), payable within thirty days after notice of election, and within thirty days after each recurring annual date. The failure of any person to make such initiatory payment and such annual payments within said time shall, at the option of the Board of Trustees, be sufficient grounds for the forfeiture of an annual membership.

This said annual membership shall entitle the member to:

First. - Free admittance for the member and family, to the Museum on any day.

Second. - Ten tickets every year, admitting the bearer to the Museum on pay day.

Third. - A copy of all publications of the Museum when requested.

Fourth. - Invitations to all special exhibits, receptions, lectures, or other functions which may be given at the Museum.

SEC. 3. The Corporate Members shall consist of the persons named in the articles of incorporation, and of such other persons as shall be chosen from time to time by the Board of Trustees at any of its meetings, upon the recommendation of the Executive Committee; provided, that such persons named in the articles of incorporation shall, within ninety days from the adoption of these By-Laws, and persons hereafter chosen as Corporate Members shall, within ninety days of their election, pay into the treasury the sum of twenty dollars (\$20.00) or more. The failure of any person to make such payment within said time, shall, at the option of the Board of Trustees, be ground for forfeiture of his corporate membership. Corporate Members becoming Life Members, Patrons or Honorary Members shall be exempt from dues. Annual meetings of said Corporate Members shall be held at the same place and on the same day that the annual meeting of the Board of Trustees is held.

SEC. 4. Any person paying into the treasury the sum of five hundred dollars (\$500.00), at any one time, shall, upon the unanimous vote of the Board, become Life Member. Life Members shall be exempt from all dues.

SEC. 5. Patrons shall be chosen by the Board upon recommendation of the Executive Committee from among persons who have rendered eminent service to the Museum. They shall be exempt from all dues, and, by virtue of their election as Patrons, shall also be Corporate Members.

SEC. 6. Honorary Members shall be chosen by the Board from among persons who have rendered eminent service to science, and only upon unanimous nomination of the Executive Committee. They shall be exempt from all dues.

ARTICLE II.

BOARD OF TRUSTEES.

SECTION 1. The Board of Trustees shall consist of fifteen members. The respective members of the Board now in office, and those who shall hereafter be elected, shall hold office during life. Vacancies occurring in the Board shall be filled at a regular meeting of the Board, upon the nomination of the Executive Committee made at a preceding regular meeting, by a majority vote of the members of the Board present.

SEC. 2. Regular meetings of the Board shall be held on the second Monday of each month. Special meetings may be called at any time by the President, and shall be called by the Secretary upon the written request of three Trustees. Five Trustees shall constitute a quorum, except for the election of officers or the adoption of the Annual Budget, when seven Trustees shall be required, but meetings may be adjourned by any less number from day to day, or to a day fixed, previous to the next regular meeting.

SEC. 3. Reasonable written notice, designating the time and place of holding meetings, shall be given by the Secretary.

ARTICLES III.

HONORARY TRUSTEES.

SECTION 1. As a mark of respect, and in appreciation of services performed for the Institution, those Trustees who by reason of inability, on account of change of residence, or for other cause, or from indisposition to serve longer in such capacity, shall resign their place upon the Board, may be elected, by a majority of those present at any regular meeting of the Board, an Honorary Trustee for life. Such Honorary Trustee will receive notice of all meetings of the Board of Trustees, whether regular or special, and will be expected to be present at all such meetings, and participate in the deliberations thereof, but an Honorary Trustee shall not have the right to vote.

ARTICLE IV.

OFFICERS.

SECTION 1. The officers shall be a President, a First Vice-President, a Second Vice-President, a Secretary, an Assistant Secretary and a Treasurer. They shall be chosen by ballot by the Board of Trustees, a majority of those present and voting being necessary to elect. The President, the First Vice-President, and the Second Vice-President shall be chosen from among the members of the Board of Trustees. The meeting for the election of officers shall be held on the second Monday of January of each year, and shall be called the Annual Meeting.

SEC. 2. The officers shall hold office for one year, or until their successors are elected and qualified, but any officer may be removed at any regular meeting of

SEC. 1. The Board of Trustees, by a vote of two-thirds of all the members of the Board, may from time to time may be filled by the Board at any meeting.

SEC. 2. The members shall perform such duties as ordinarily appertain to their respective offices, and which shall be prescribed by the By-Laws, or designated from time to time by the Board of Trustees.

ARTICLE V.

THE TREASURER.

SECTION 1. The Treasurer shall be custodian of the funds of the Corporation. He shall make disbursement only upon warrants drawn by the Director and countersigned by the President. In the absence or inability of the Director, warrants may be signed by the Chairman of the Finance Committee, and in the absence or inability of the President, may be countersigned by one of the Vice-Presidents. But no warrants shall be issued, except in conformity with a regularly prepared voucher, giving the name of the payee and stating the occasion for the expenditure of the funds, and approved as hereinafter prescribed. It shall be no part of the duties of the Treasurer to see that the warrants have been issued in conformity with such vouchers.

SEC. 2. The securities and muniments of title belonging to the Corporation shall be placed in the custody of some Trust Company of Chicago to be designated by the Board of Trustees, which Trust Company shall collect the income and principal of said securities as the same become due, and pay same to the Treasurer. Said Trust Company shall allow access to and deliver any or all securities or muniments of title to the joint order of the following officers, namely: The President or one of the Vice-Presidents, jointly with the Chairman, or one of the Vice-Chairmen, of the Finance Committee of the Museum.

SEC. 3. The Treasurer shall give bond in such amount, and with such sureties, as shall be approved by the Board of Trustees.

SEC. 4. All vouchers executed for the payment of liabilities incurred in the administration of the Museum, shall be verified by the Auditor, and approved for payment by the Director, and the Chairman of the Administration Committee. All vouchers executed for expenditures for the construction or reconstruction of the Museum building, or buildings, shall be verified by the Auditor and approved for payment by the Chairman of the Building Committee. All vouchers executed in connection with the investments of the Corporation, or, in any way having to do with the endowment funds of the Corporation, shall be verified by the Auditor and approved for payment by the Chairman of the Finance Committee.

ARTICLE VI.

THE DIRECTOR.

SECTION 1. The Board of Trustees shall elect a Director of the Museum, who shall remain in office until his successor shall be elected. He shall have immediate charge and supervision of the Museum, and shall control the operations of the institution, subject to the authority of the Board of Trustees and its Committees. The Director shall be the official medium of communication between the Board, its Committees, and the scientific staff and maintenance force.

SEC. 2. There shall be four scientific departments of the Museum—Anthropology, Botany, Geology and Zoology, each under the charge of a Curator, subject to the

authority of the Director. The Curators shall be appointed by the Board upon the recommendation of the Director, and shall serve during the pleasure of the Board. Subordinate staff officers in the scientific departments shall be appointed and removed by the Director upon the recommendation of the Curators of the respective Departments. The Director shall have authority to employ and remove all other employees of the Museum.

SEC. 3. The Director shall make report to the Board at each regular meeting, recounting the operations of the Museum for the previous month. At the Annual Meeting, the Director shall make an Annual Report, reviewing the work of the Museum for the previous year, which Annual Report shall be published in pamphlet form for the information of the Trustees and Members, and for free distribution in such number as the board may direct.

ARTICLE VII.

AUDITOR.

SECTION 1. The Board shall appoint an Auditor, who shall hold his office during the pleasure of the Board. He shall keep proper books of account, setting forth the financial condition and transactions of the Corporation, and of the Museum, and report thereon at each regular meeting, and at such other times as may be required by the Board. He shall certify to the correctness of all vouchers for the expenditure of the money of the Corporation.

ARTICLE VIII.

COMMITTEES.

SECTION 1. There shall be five Committees as follows: Finance, Building, Auditing, Administration and Executive.

SEC. 2. The Finance, Building and Auditing Committees shall each consist of three members, and the Administration Committee shall consist of five members. All members of these four Committees shall be elected by ballot by the Board at the Annual Meeting, and shall hold office for one year, and until their successors are elected and qualified. In electing the members of these Committees, the Board shall designate the Chairman and Vice-Chairman by the order in which the members are named in the respective Committees; the first member named shall be Chairman, the second named the Vice-Chairman, and the third named, Second Vice-Chairman, succession to the Chairmanship being in this order in the event of the absence or disability of the Chairman.

SEC. 3. The Executive Committee shall consist of the President of the Board, the Chairman of the Finance Committee, the Chairman of the Building Committee, the Chairman of the Administration Committee, the Chairman of the Auditing Committee, and two other members of the Board to be elected by ballot at the Annual Meeting.

SEC. 4. Four members shall constitute a quorum of the Executive Committee; three members shall constitute a quorum of the Administration Committee, and in all other standing Committees, two members shall constitute a quorum. In the event that, owing to the absence or inability of members, a quorum of the regularly elected members cannot be present at any meeting of any Committee, then the Chairman thereof, or his successor, as herein provided, may summon any member of the Board of Trustees to act in place of the absentee.

SEC. 5. The Finance Committee shall have supervision of investing the endowment and other permanent funds of the Corporation, and the care of such real estate as may become its property. It shall have authority to invest, sell, and reinvest, funds subject to the approval of the Board.

SEC. 6. The Building Committee shall have supervision of the construction, reconstruction, and extension of any and all buildings used for Museum purposes.

SEC. 7. The Executive Committee shall be called together from time to time as the Chairman may consider necessary, or as he may be requested to do by three members of the Committee, to act upon such matters affecting the administration of the Museum as cannot await consideration at the Regular Monthly Meetings of the Board of Trustees. It shall, before the beginning of each fiscal year, prepare and submit to the Board an itemized Budget, setting forth the probable receipts from all sources for the ensuing year, and make recommendations as to the expenditures which should be made for routine maintenance and fixed charges. Upon the adoption of the Budget by the Board, the respective Committees shall be considered as authorized to make the expenditures detailed therein. No increase in expenditures over the amount of the Budget shall be made, except by authority of the Board of Trustees, but the Executive Committee shall have authority, in cases of emergency, to expend a further total sum not exceeding two thousand dollars in any one month.

SEC. 8. The Administration Committee shall have general supervision of the affairs of the Museum. The Committee shall hold one meeting each month with the Director at the Museum within a week preceding each Monthly Meeting of the Board of Trustees.

SEC. 9. The Auditing Committee shall have supervision over all accounting and shall keep a full control of the financial records. It shall cause the same, once each year, or oftener, to be examined by an expert individual or firm, and shall cause the report of such expert individual or firm to the Board at the next ensuing regular meeting after such examination shall have taken place.

SEC. 10. The Chairman of each Committee shall report the acts and proceedings thereof at the next ensuing regular meeting of the Board.

SEC. 11. The President shall be ex-officio a member of all Committees and Chairman of the Executive Committee. Vacancies occurring in any Committee may be filled by ballot at any regular meeting of the Board.

ARTICLE IX.

NOMINATING COMMITTEE.

SECTION 1. At the November meeting of the Board, each year a Nominating Committee of three shall be chosen by lot. Said Committee shall make nominations for membership of the Finance Committee, the Building Committee, the Administration Committee, and the Auditing Committee, and for two members of the Executive Committee, from among the Trustees, to be submitted at the ensuing December meeting and voted upon at the following Annual Meeting in January.

ARTICLE X.

SECTION 1. Whenever the word "Museum" is employed in the By-Laws of the Corporation, it shall be taken to mean the building in which the Museum as an Institution is located and operated, the material exhibited, the material in study



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collections, or in storage, furniture, fixtures, cases, tools, records, books, and all appurtenances of the Institution, and the workings, researches, installations, expenditures, field work, laboratories, library, publications, lecture courses, and all scientific and maintenance activities.

SEC. 2. These By-Laws may be amended at any regular meeting of the Board of Trustees by a two-thirds vote of all the members present, provided the amendment shall have been proposed at a preceding regular meeting.

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